

Transmission Vegetation Management Imminent Threat and Hazard Notification

SUMMARY

This utility procedure presents instructions for handling vegetation that is encroaching (or is threatening to encroach) into NERC minimum vegetation clearance distances and/or Pacific Gas and Electric Company (PG&E) minimum clearance requirements for overhead electric transmission lines.

Steps are provided for three vegetation conditions: Imminent Threats to NERC lines, HN--Immediate, and HN--Urgent.

Level of Use: Reference Use

TARGET AUDIENCE

Vegetation Management (VM) employees and contract partners responsible for vegetation compliance around transmission Facilities.

Vegetation Program Manager (VPM)

Database Management Specialists (DMS)

Tree Crews (TCs)

SAFETY

NA

BEFORE YOU START

Verify that the Grid Control Center (GCC) contact number is saved to your mobile device(s):

██████████.

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PROCEDURE STEPS

1 Identification and Classification of an Imminent Threat or a Hazard

1.1 The first responder must PERFORM the following steps to IDENTIFY and CLASSIFY a hazard condition:

1. ASSESS the condition conservatively.

a. IF unsure,

THEN IDENTIFY the condition as Imminent Threat instead of Hazard Notification-Immediate or as Hazard Notification-Immediate instead of Hazard Notification-Urgent.

2. DETERMINE whether the observed condition affecting the electric transmission Facilities requires immediate or urgent mitigation, according to the following guidelines.

Classification	Vegetation Condition
Imminent Threat	<p>Vegetation affecting NERC transmission Facilities and likely to cause a fault at any moment.</p> <p>Vegetation at the NERC Minimum Vegetation Clearance Distances (MVCD) in Appendix A, "NERC Minimum Vegetation Clearance Distance."</p> <p>This condition may arise from within or outside the electric transmission right-of-way (ROW). It may be the result of tree growth, potential tree or limb failure, new construction that changes equipment dimensions or placement, or line movement due to sag or sway.</p>
Hazard Notification-Immediate (HN-I, HN-Imd, or HN-Immediate)	<p>Vegetation that is within the PG&E minimum clearance requirements AND poses an immediate threat to the conductors in Appendix B, "PG&E Minimum Clearance Requirements."</p> <p>Vegetation that is actively failing or otherwise presents an immediate risk to electric overhead Facilities.</p>
Hazard Notification-Urgent (HN-U, HN-Urg, or HN-Urgent)	<p>Vegetation approaching, encroaching, or is at the PG&E minimum clearance requirements in Appendix B, "PG&E Minimum Clearance Requirements."</p> <p>Vegetation that requires near-term mitigation.</p>

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3. The first responder must DETERMINE which option below applies and PERFORM the steps in that option.
 - For an Imminent Threat condition, PROCEED TO [Section 2, “Handling an Imminent Threat to NERC Transmission Facilities.”](#)
 - For an HN-Immediate condition, PROCEED TO [Section 3, “Handling an HN-Immediate Condition.”](#)
 - For an HN-Urgent condition, PROCEED TO [Section 4, “Handling an HN-Urgent Condition.”](#)

2 Handling an Imminent Threat to NERC Transmission Facilities

2.1 Notifying Contacts of a Potential Imminent Threat

NOTE

Leaving the VPM a voicemail alone does NOT meet minimum contact requirements. A verbal or electronic (email or text) response from the VPM or Supervisor Vegetation Program Manager (SVPM) is required.

1. The first responder must CALL the Grid Control Center (GCC) at [REDACTED] (all calls to the GCC are recorded and time stamped) AND PROVIDE the following information:
 - Phone number
 - Description of the vegetation condition
 - Location of the vegetation condition, including the line name, and nearest tower number between towers #1 and #2
 - Field conditions, including the identification of any riparian or environmentally sensitive areas
 - Location access
 - Property ownership
 - Photographs
2. The first responder must CALL the TC AND REQUEST an immediate response to mitigate the imminent threat.

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3. The first responder must CALL the VPM.
 - a. IF the VPM is unavailable,

THEN the first responder must CONTACT AND NOTIFY the VM Supervisor
OR, if the VM Supervisor is unavailable, the VM Transmission Operations
Manager.
4. The first responder must REPEAT calls until contact is successful.

2.2 Investigating a Potential Imminent Threat

1. The first responder must REMAIN onsite until a VPM (or Delegate) arrives and provides relief unless an unavoidable reason exists.

The situations listed below are appropriate reasons to leave a site unattended:

- It is unsafe to be onsite (e.g., hostile customer, extreme weather conditions, etc.).
- The site is in a remote location that requires leaving to gain cellular service.

2. IF the VPM (or Delegate) DETERMINES that an immediate response and mitigation are required,

THEN the VPM (or Delegate) must CONTACT the TC AND DIRECT emergency response needs.

OTHERWISE, IF the VPM (or Delegate) DETERMINES that the situation does NOT meet the criteria for an imminent threat,

THEN the VPM (or Delegate) must DETERMINE the best course of action to resolve the situation.

- a. REFER TO [Section 1, "Identification and Classification of an Imminent Threat or Hazard."](#)
 - b. CALL the GCC and the TC and PROVIDE an update on the situation.
3. WHEN the mitigation work is complete,

THEN the VPM (or Delegate) must NOTIFY the GCC, VM Supervisor, and VM Transmission Operations Manager that work is complete and that all personnel are clear of the line.
 4. IF maximum clearance is NOT achieved at the time of mitigation,

THEN the VPM (or Delegate) must NOTIFY the VM Transmission Operations Manager AND DOCUMENT the next steps.

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2.3 Documenting an Imminent Threat

1. While onsite, the first responder (or Delegate) must DOCUMENT the occurrence in the Vegetation Management Database (VMD), as follows:
 - a. CREATE a tag location record.
 - b. ENTER **IT** in the Tag Number field on the location record.
 - c. CREATE a tree record.
 - d. SELECT priority code **HN-Imd** on the tree record.
 - e. COMPLETE the Hazard Notification and Imminent Threat Form.
 - f. COMPLETE the tree record and location record.
 - g. CLICK **Transmit**.

2.4 Generating a Work Request

1. On the same business day, the Database Manager Specialist (DMS) (or Delegate) must PERFORM the following tasks:
 - a. GENERATE a Work Request from the imminent threat VMD tag location record.
 - b. ASSIGN the WR to the TC designated by the VPM.
 - c. SELECT **Express** in the Work Category dropdown menu.
2. Within 24 hours, the DMS (or Delegate) must SOFT CLOSE the Work Request.
 - REFER to the [TD-7102P-17-JA01, "Work Packet Generation and Soft Closure of a Work Request"](#) Job Aid.

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2.5 Performing Post Analysis

When performing the post-analysis process, the reviewing party must COVER the following topics:

- Root cause analyses
- Trend analyses
- Actions to prevent recurrence
- Responsible parties and timelines for any follow-up actions

3 Handling an HN-Immediate Condition

3.1 Notifying the VPM of a HN-Immediate Condition

1. The first responder must TREAT each HN-I situation as an emergency location (e.g., a wire down condition) AND REMAIN onsite.

The situations listed below are appropriate reasons to leave a site unattended:

- Unsafe to be onsite (e.g., hostile customer, extreme weather conditions, etc.)
- Remote location requiring movement to gain cellular service
- To leave a site unattended for other reasons, the first responder must OBTAIN approval from the VPM (see Step 3.1.4).

2. The first responder must CONTACT the VPM and PROVIDE the following location and situation information:

- Hazard description
- Location information and access
- Field conditions

NOTE

Leaving VPM a voicemail alone does NOT meet minimum contact requirements. A verbal or electronic (email or text) response from the VPM or SVPM is required.

3. The first responder must COORDINATE hazard mitigation activities with the local VPM. Mitigation must be complete within 24 hours of identification.

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4. IF the first responder requests approval to leave the site unattended,
THEN the VPM must PERFORM the following tasks before issuing approval:
 - a. DEVELOP a mitigation plan.

The mitigation plan must include an estimation of the following activities:
 - Site re-occupation
 - Date and time of completion
 - b. EMAIL the mitigation plan to the VM Transmission Operations Manager of Transmission in Vegetation Management.

3.2 Generating a Work Request

1. The DMS or a delegate must GENERATE AND ISSUE a tag Work Request with the HN-Imd priority code.
 - REFER to the [TD-7102P-17-JA01, "Work Packet Generation and Soft Closure of a Work Request"](#) Job Aid.

The tree must be worked and invoiced on a separate HN Work Request.
2. The first responder must COMPLETE the top portion and **Part I** of the [TD-7103P-09-F01, "Hazard Notification and Imminent Threat Form."](#)
3. The Vegetation Program Lead (VPL) or a Delegate must COMPLETE **Parts II and III** of the TD-7103P-09-F01, "Hazard Notification and Imminent Threat Form," AND REVIEW the form with the VPM OR Supervisor.
4. To close out the ITS record, FOLLOW the [TD-7103P-09-JA01, "Entering Vegetation Hazard Notification \(HN\) Information into the Incident Tracking System \(ITS\) Database"](#) Job Aid.
5. Within 24 hours, the DMS (or Delegate) must SOFT CLOSE the Work Request.
 - REFER to the [TD-7102P-17-JA01, "Work Packet Generation and Soft Closure of a Work Request"](#) Job Aid.

3.3 Delays and Interferences With HN-Immediate Mitigation

1. IF the HN-Immediate tag cannot be mitigated within 24 hours,
THEN the first responder must DISCUSS the situation and solutions with the VPM.
2. By email OR phone, the VPM must NOTIFY the VM Supervisor and VM Transmission Operations Manager of the reason for the delay and the estimated time of completion.

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3. The VPM or VM Supervisor must promptly REPORT all actions performed outside the routine permit process to the appropriate agency.

NOTE

Efforts to mitigate the HN-Immediate tag should NOT be delayed due to interference by either of the following conditions:

- Customer or agency objections
- Environmental processes, bird nests, permits (i.e., city/county), or similar conditions

4 Handling an HN-Urgent Condition

- 4.1 The DMS (or Delegate) must GENERATE AND ISSUE a tag Work Request with the HN-Urg priority code within 3 business days of the hazard being observed.
 - REFER to the [TD-7102P-17-JA01, "Work Packet Generation and Soft Closure of a Work Request"](#) Job Aid.
 - HN-Urgent tags must be mitigated within 20 business days of being reported to a PG&E employee, unless constrained.
- 4.2 If the work cannot be performed in 20 business days, the DMS (or Delegate) must ESCALATE the tag to the VPM.
- 4.3 The VPM must DETERMINE whether to upgrade the tag or put it into constraint status.

END of Instructions

DEFINITIONS

Contract Partner: Company directly hired by PG&E to complete a specific Scope of Work or service. This term also applies to all subcontract partners, at any tier, which have been retained by a primary PG&E contract partner to provide a service for PG&E related project work. Additionally, the term "subcontract partner" may include an individual, a group of workers (crew), equipment or other items used on a PG&E facility, project, or assets.

Delegate: Can be Employees or Contract Partners (together, Personnel) within the VM Functional Area (FA).

Easement: An interest in land owned by another person or entity that gives the owner of the easement limited right to that land for a specific, defined purpose. It is a non-possessory, restricted right for a specific use or activity on the land of another that is less than ownership. Used interchangeably with right-of-way.

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Facilities (Transmission): Conductors, towers, and attachments within one span.

First Responder: A PG&E VM employee or contract partner in the field who identifies or responds to a vegetation condition and can document the incident in the system of record.

Grid Control Center (GCC): The PG&E transmission control center that holds switching authority for the specific transmission line where a potential imminent threat might exist.

High Fire-Threat District (HFTD): High Fire-Threat District means those areas comprised of the following:

- (1) Zone 1 is Tier 1 of the latest version of the United States Forest Service (USFS) and CAL FIRE's joint map of Tree Mortality High Hazard Zones (HHZs). (Note: The Tree Mortality HHZs Map may be revised regularly by the USFS and CAL FIRE.)
- (2) Tier 2 is Tier 2 of the CPUC Fire-Threat Map.
- (3) Tier 3 is Tier 3 of the CPUC Fire-Threat Map.

HN-Immediate (HNI): A condition where vegetation is within the PG&E minimum clearance requirements, or vegetation poses an immediate threat to the conductors, or vegetation is actively failing or otherwise presents an immediate risk to electric overhead facilities.

HN-Urgent (HNU): A condition where vegetation is at or approaching the PG&E minimum clearance requirements or vegetation which requires near-term mitigation.

Imminent Threat: A vegetation condition affecting NERC transmission lines that is likely to cause a fault at any moment, and vegetation within the NERC Minimum Vegetation Clearance Distances (MVCD). This condition may arise from within or outside the electric transmission right-of-way (ROW) and may be the result of tree growth, potential tree or limb failure, new construction that changes equipment dimensions or placement, or line movement due to sag or sway. (For an illustration see Appendix C, Sag and Sway Diagrams (Informative).)

Minimum Clearance Requirement (MCR) (may also be referred to as **Minimum Distance Requirement (MDR)**): Minimum clearance distance required by PG&E for distribution and transmission lines. See [Appendix B](#).

Minimum Vegetation Clearance Distance (MVCD): Minimum vegetation clearance distance required to prevent flash-over. However, prudent vegetation management practices dictate that substantially greater distances be achieved at the time of vegetation maintenance. See [Appendix A](#).

NERC-Regulated Transmission Lines (NERC lines): Transmission lines operated at 200 kV or higher and certain sub-200 kV lines that are elements of a Major Western Electric Coordinating Council (WECC) Transfer Path.

Priority Code: Specific code used to indicate that tree work is needed, including when an imminent threat has been confirmed.

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Right-of-Way (ROW): See Easement definition.

Riparian Area: The areas bordering bodies of water: Streams, rivers, canals, ditches, ponds, lakes, etc. For the purposes of this procedure, the riparian area extends from the water's edge to the top of bank (TOB) and outward to the outer edge of contiguous riparian vegetation.

When working in the San Joaquin Valley HCP area, all vegetation within 25 feet of the TOB should be considered riparian.

For assistance in determining the extent of a riparian area, refer to the [TD-7102P-16-JA_01, "Identifying Riparian Areas"](#) Job Aid.

Work Request: A record requesting specified vegetation work to be completed by a Tree Crew.

IMPLEMENTATION RESPONSIBILITIES

The VM transmission team is responsible for the implementation, communication, and maintenance of this procedure and associated standard.

- The VM manager communicates this procedure to the VM stakeholders.
- The VM supervisor communicates this procedure to the operational work teams.

GOVERNING DOCUMENT

[Utility Standard TD-7103S, "Transmission Vegetation Management Standard \(TVMS\)"](#)

COMPLIANCE REQUIREMENT / REGULATORY COMMITMENT

Records and Information Management:

PG&E Data, Information, and Records are company assets that must be traceable, verifiable, accurate, and complete and can be retrieved upon request. Functional Areas are responsible for complying with the Information & Records Governance Policy, Standards, and the Information and Records Retention Schedule. Refer to [GOV-7101S, "Enterprise Records and Information Management Standard"](#) for further guidance or contact Information & Records Governance at Information&RecordsGovernance@pge.com.

California Public Resource Code (PRC) sections [4292](#) and [4293](#)

[California Public Utility Commission \(CPUC\) General Order \(GO\) 95, Rule 35](#)

[Federal Energy Regulatory Commission \(FERC\) Order No. 777](#)

North American Electric Reliability Corporation (NERC), [NERC FAC-003-5](#)

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REFERENCE DOCUMENTS

Developmental References:

NA

Supplemental References:

[VM Core Share](#)

APPENDICES

Appendix A, NERC Minimum Vegetation Clearance Distance

Appendix B, PG&E Minimum Clearance Requirements

Appendix C, Sag and Sway Diagrams (informative)

ATTACHMENTS

[TD-7103P-09-F01, "Hazard Notification / Imminent Threat Form"](#)

[TD-7103P-09-JA01, "Entering Vegetation Hazard Notification \(HN\) Information into the Incident Tracking System \(ITS\) Database"](#)

DOCUMENT REVISION

TD-7103P-05, "Transmission Vegetation Management Imminent Threat Procedure,"
2/14/2023, Rev. 6

DOCUMENT APPROVER

██████████, Director, South and Transmission, Vegetation Management Operations

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REVISION NOTES

Where?	What Changed?
Table of Contents	Removed two-step numbering for subsection titles, which goes against policy.
Step 2.1.1	Inserted minimum contact requirements into a note box
Step 3.1.2	Inserted minimum contact requirements into a note box
Step 3.2.3	Pre-Inspection Manager (PIM) replaced with Vegetation Program Lead (VPL)
Compliance Requirement / Regulatory commitment	Updated links for PRC 4292, 4293, and CPUC GO 95 rule 35.
Appendix B	Moved Appendix B onto its own page, it was combined with Appendix A, which goes against policy.

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Appendix A, NERC Minimum Vegetation Clearance Distance

PG&E requirements must always meet or exceed the NERC requirements in table 1. The minimum vegetation clearance distances (MVCD) in table 1 are copied from NERC standard FAC-003-5.

Table 1. NERC Minimum Vegetation Clearance Distance (MVCD) in Feet

Elevation (feet)	60/70 kV	115 kV	230 kV	500 kV
0–500	1.1 ft.	1.9 ft.	4.0 ft.	7.0 ft.
501–1000	1.1	1.9	4.1	7.1
1001–2000	1.1	1.9	4.2	7.2
2001–3000	1.2	2.0	4.3	7.4
3001–4000	1.2	2.0	4.3	7.5
4001–5000	1.2	2.1	4.4	7.6
5001–6000	1.2	2.1	4.5	7.8
6001–7000	1.3	2.2	4.6	7.9
7001–8000	1.3	2.2	4.7	8.1
8001–9000	1.3	2.3	4.8	8.2
9001–10,000	1.4	2.3	4.9	8.3
10,001–11,000	1.4	2.4	5.0	8.5
11,001–12,000	1.4	2.5	5.1	8.6
12,001–13,000	1.5	2.5	5.2	8.8
13,001–14,000	1.6	2.6	5.3	8.9
14,001–15,000	1.6	2.7	5.4	9.1

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Appendix B, PG&E Minimum Clearance Requirements

The PG&E-defined minimum clearance requirements (MCR) are designed to meet or exceed all applicable regulatory requirements, at all times, including NERC standard FAC-003-5.

Table 2. PG&E Minimum Clearance Requirements

	4 kV–21 kV in LRA	4 kV–21 kV in HFTD/SRA	60/70 kV	115 kV	230 kV	500 kV
PG&E Minimum Clearance Requirement	18 in.	4 ft.	4 ft.	10 ft.	10 ft.	15 ft.

Note. LRA is local responsibility area. HFTD is high fire-threat district. SRA is state responsibility area.

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Appendix C, Sag and Sway Diagrams (Informative)
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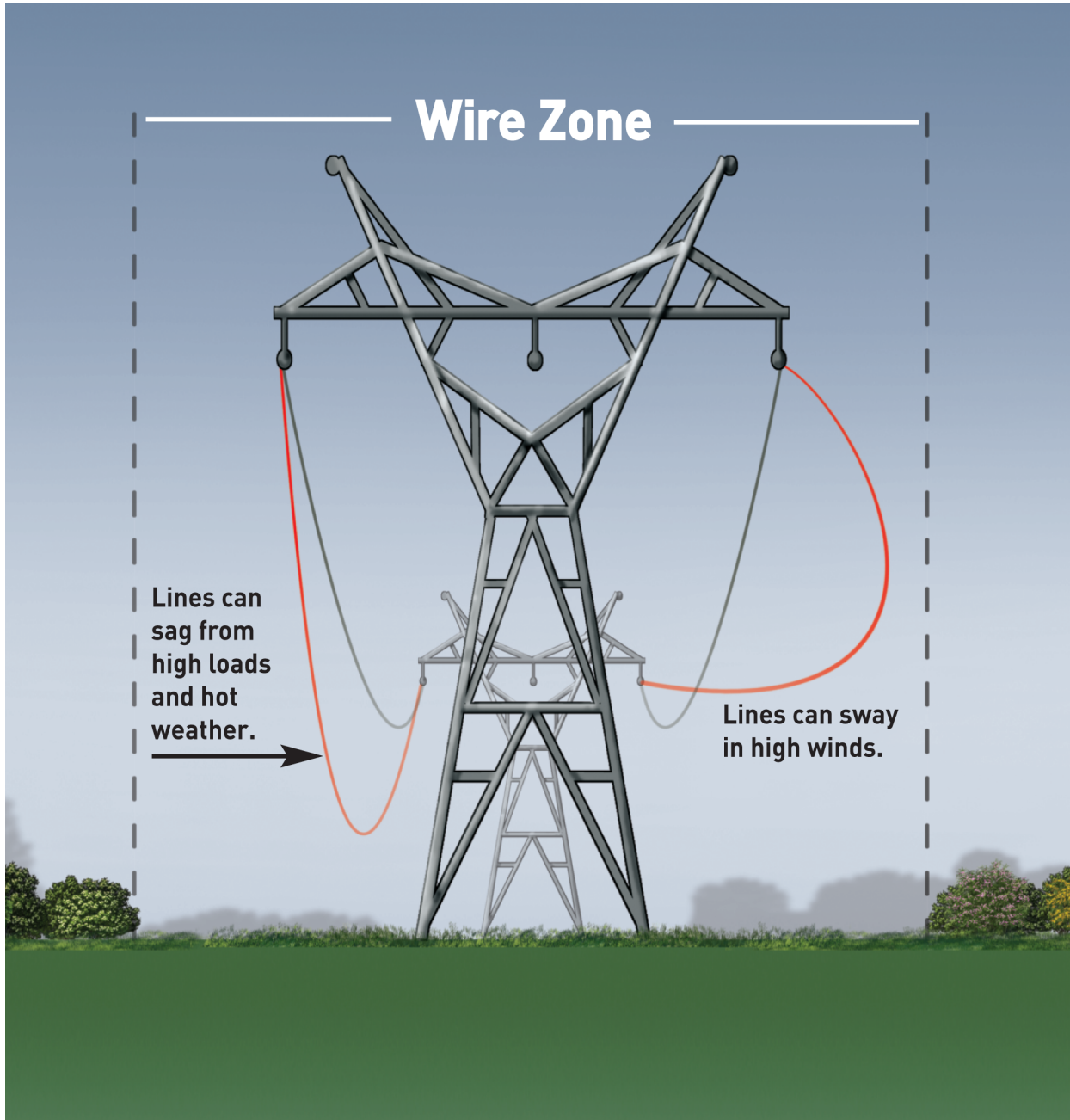


Figure 1. Lines can sag from high loads and hot weather; lines can sway in high winds
(The illustration is informative only.)

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Appendix C, Sag and Sway Diagrams (Informative)

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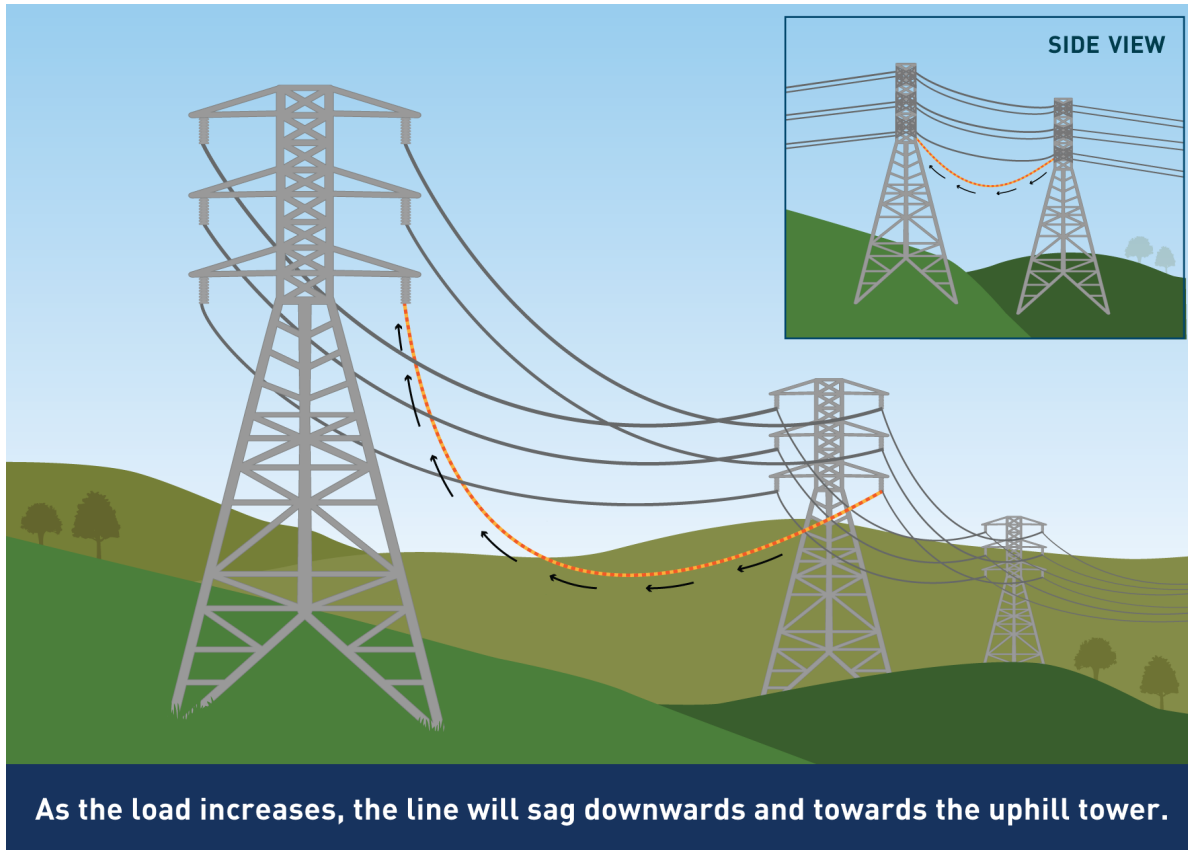


Figure 2. As the load increases, the line will sag downwards and towards the uphill tower
(The illustration is informative only.)