

CITY OF AZUSA
WILDFIRE MITIGATION PLAN

June 15, 2020

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CITY OF AZUSA

WILDFIRE MITIGATION PLAN

1. PURPOSE AND OBJECTIVES

A. Purpose

The City of Azusa (“Azusa”) owns and operates an electric distribution utility in the City of Azusa and provides safe, reliable, sustainable, and affordable electricity to its residents and businesses through its Light and Water Department (as more fully described in Exhibit A).

This Wildfire Mitigation Plan (“WMP”) documents that Azusa’s electric distribution facilities within the California Public Utilities Commission (“CPUC”) Tier 2 and Tier 3 Fire Threat Zones (“Fire Threat Area”), as shown in Exhibits B and C, are 100% underground facilities that do not pose a risk of wildfire ignition and no further mitigation measures are required.

B. Objectives

The objectives of this WMP are as follows:

- (1) Identify Azusa’s electric distribution facilities located within the Fire Threat Area.
- (2) Establish that wildfire ignition risk from Azusa’s electric distribution facilities is fully mitigated through 100% underground facilities in the Fire Threat Area.
- (3) Establish that all system expansions in the Fire Threat Area will be served with underground facilities.

2. STATUTORY COMPLIANCE

Exhibit D provides a guide as to how this WMP complies with specific requirements of California Public Utilities Code (PUC) Section 8387, as amended in 2018 by Senate Bill 901 (Dodd).

3. ELECTRIC DISTRIBUTION FACILITIES IN FIRE THREAT AREAS

Exhibit C shows only two (2) distribution feeder circuits in the Fire Threat Area, and both circuits are comprised of all-underground facilities. These two circuits are named the Owl and Sierra Madre 12.47 kV circuits. There are currently no plans for system expansion into the Fire Threat Area. Accordingly, no areas have been

identified where the commission should expand a high fire-threat district based on new information or changes to the environment.

4. WILDFIRE RISKS

Azusa employed a methodology for identifying and presenting enterprise wide safety risk and wildfire-related risk in the development of this WMP, including consultation with local fire authorities and incorporation of industry best practices to identify the following wildfire risks and mitigation strategies.

- A. General Wildfire Risk: Fires caused by electrical facilities are generally caused by an electrical short circuit, which creates heat and ignites a source of fuel. Localized electrical fires transform into catastrophic wildfires when there is dry and abundant fuel available and wind conditions spread the fire quickly before it can be controlled. Wildfire prevention programs mitigate ignition sources and fuel availability.
- B. Ignition Risk: Underground electrical facilities have inherently low ignition risk because the conductors are buried approximately 3-feet below ground, and the conductors are terminated in enclosed concrete vaults or metal cabinets. Any ignition from an electrical fault would extinguish quickly in the absence of fuel. Undergrounding of facilities is one of the most effective form of wildfire mitigation.
- C. Fuel Risk: The customer service areas served by the underground electrical facilities in the Fire Threat Area are in fully developed residential neighborhoods with no brush or wooded areas that would serve as a fuel source that could grow into a catastrophic wildfire. Also, all premises served in the Fire Threat Area are subject to the Los Angeles County Fire Department Brush Clearance Program, which requires property owners to clear fuel within a 30-foot radius of the structure, which further mitigates wildfire risk.
- D. Topographic Risks: Azusa is a city in the San Gabriel Valley, at the foot of the San Gabriel Mountains. The mountains to the north of the City have been designated as CPUC Fire-Threat Tier 2 (Elevated) and CPUC Fire-Threat Tier 3 (Extreme). However, there are only two (2) distribution feeder circuits in the Fire Threat Area, and both circuits are comprised of all-underground facilities, in developed residential areas, and pose limited wildfire risk.
- E. Climatological Risks: Extended droughts or continued periods of below average rainfall can increase dry vegetative fuel loads leading to the increase in wildfire risk. Prolonged droughts can also weaken or kill trees. High winds can spread wildfires and blow organic and flammable materials into exposed energized equipment. However, since Azusa's facilities are 100% underground in the Fire Threat Area there are no exposed energized conductors and low fuel subject to climatological conditions in the fully developed residential neighborhoods; therefore, climatological risks are low. The City's annual vegetation management program, that exist outside of the Fire Threat Area for reliability purposes, clears

all vegetation around high-voltage overhead power lines.

5. WILDFIRE MITIGATION ACTIVITIES

The City of Azusa shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment, including the following programs and activities:

- A. 100% Underground Facilities in Fire Threat Area: Azusa shall maintain 100% underground facilities in the Fire Threat Area, including any new system expansions or line extensions.
- B. Facilities Inspection Program: Azusa will continue to perform annual inspections of all electrical facilities in the Fire Threat Area, in accordance with California Public Utilities Commission (“CPUC”) General Order (“GO”) 165 and promptly repair any issues found pursuant to such inspections. All required repairs will be prioritized and completed in following order of priority:
 - (1) Condition A: Immediate safety or reliability problem. Repair immediately;
 - (2) Condition B: Maintenance or repair required but not an immediate hazard. Repair within 90 days
 - (3) Condition C: Minor aging. Check during next inspection.
- C. No Automatic Re-energization into Fire Threat Area: The two feeder circuits serving customers in the Fire Threat Area shall not be automatically re-energized. Manual re-energization shall occur only after a visual inspection of facilities.
- D. Vegetation Management Program: Azusa has a long-established system-wide annual power line clearance tree trimming program, which clears all vegetation around high-voltage overhead power lines. Clearances are maintained in accordance with CPUC GO 95 using Appendix E as a guideline. This program was established and will continue for system reliability and is not part of this WMP because there are no overhead facilities in the Fire Threat Area requiring vegetation management.

6. PUBLIC SAFETY POWER SHUTOFFS AND CUSTOMER NOTIFICATION

- A. Azusa Initiated Public Safety Power Shutoffs (“PSPS”): Given that underground distribution facilities are not subject to increased risk during wind events and have a very low probability of ignition, Azusa does not plan on initiating PSPS for its feeder circuits pursuant to high wind conditions.
- B. Southern California Edison Initiated PSPS: Azusa imports 100% of its power supply from the California Independent System Operator (“CAISO”) electric grid.

SCE is the Transmission Operator that operates both of Azusa's substations. SCE has advised Azusa that one of the SCE lines serving Azusa Substation runs partially through the Fire Threat Area and is subject to PSPS. The probability of SCE initiated PSPS for this line is very low because it runs through a commercial/industrial area, and it is not adjacent to an open space fuel source. Also, Azusa Substation is fed from a second sub-transmission line that is capable of carrying the entire station should a PSPS require the line through the Fire Threat Area to be de-energized. However, Azusa maintains good communication with SCE electric operations personnel and is prepared to shed load if required by a PSPS as described. In the event of a PSPS requiring Azusa to interrupt service to its customers, all power shall be promptly restored following the PSPS.

C. PSPS Notification of Customers: In the event that SCE were to interrupt one of the lines feeding Azusa Substation pursuant to a PSPS, and the remaining line was unable to reliably carry the entire station, then Azusa would shed load as required to stabilize the distribution system and employ the following customer communication protocols to notify customers of the extent and duration of the interruption:

(1) Post notices and updates on the Azusa website and social media.

(2) Email critical first responders such as Azusa Police Department, Los Angeles County Fire Department, and Verizon. There are no hospitals or other health care facilities currently operating in Azusa, but the email communication program would extend to any new health care facilities in the future.

(3) Call large key account customers, including the critical first responders to ensure clear communication.

D. Emergency Management:

One of the benefits of having a municipally owned electric and water utility is the close coordination with the first responders of other Departments of the City and the Los Angeles County Fire Department that provides fire and rescue services to the City. When the City Emergency Operations Center is invoked, under the incident command of the Azusa Police Department, Azusa electric utility first responders work collaboratively to manage emergencies affecting electric service, such as fires, PSPS events, earthquakes, floods, etc. The City Emergency Operation Center is organized and operated in accordance with the City's Local Hazard Mitigation Plan, which available at the following web link: <https://azusaca.gov/DocumentCenter/View/41099/D-1-Staff-Report---GPA-2019-01--LHMP-Adoption?bidId=>.

7. PLAN MONITORING AND AUDIT RESPONSIBILITIES

The following Azusa personnel are responsible for the implementation, monitoring, and auditing the effectiveness of this WMP.

- A. **Director of Utilities:** Accountable for the implementation of a WMP that is in compliance with statutory requirements, including the following:
- (1) Verify that the wildfire mitigation plan complies with all applicable rules, regulations, and standards, as appropriate.
 - (2) Accept comments from the public, other local and state agencies, and interested parties regarding the WMP.
 - (3) Present the WMP and the associated independent evaluation report, as revised, to the Azusa City Council annually at appropriately noticed public meetings.
 - (4) Submit the initial and subsequent revised versions of the WMP to the California Wildfire Safety Advisory Board on or before July 1 of each calendar year.
- B. **Assistant Director of Electric Operations:** Responsible for implementing, monitoring, auditing, and updating the WMP, including the following:
- (1) Implementation: Manage the engineering, procurement, and administration required to fully implement the mitigation programs and activities of the WMP.
 - (2) Monitor Effectiveness: WMP effectiveness is monitored by tracking the following metrics in the Fire Threat Area:
 - Number of wildfires ignited by Azusa equipment
 - Number of local fires ignited by Azusa equipment
 - Number of fuse or relay operations, including causes
- Performance metrics were first introduced in the 2019 WMP and at that time limited data was available to make comparisons. Given the nature of the wildfire risks for Azusa, no metric changes were required for this plan.
- (3) Audit Compliance: Prepare an annual WMP compliance report, Azusa will audit the implementation of the WMP including completion reports for all prevention programs and activities required by the WMP. Azusa will also monitor and audit the effectiveness of inspections including those performed by contractors.
 - (4) Update Plan: Identify WMP deficiencies based on metrics, change in conditions, new prevention technology, and/or change in law, and update the WMP as applicable to correct such deficiencies. The WMP shall be updated comprehensively every three years.
 - (5) Independent Evaluation: Contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of the WMP on an annual basis.

(6) Post on Internet: Post the latest version of the WMP and the independent evaluation report on Azusa's website for public accessibility.

8. PUBLIC COMMENT, APPROVAL AND INDEPENDENT EVALUATION

A. Public Comment

(1) On December 4, 2019, Azusa staff received comments on the WMP from the Forestry Division of the Los Angeles County Fire Department. All comments received were incorporated into the WMP.

(2) The draft WMP was posted on Azusa's website on December 12, 2019, and the Azusa City Council accepted comments from the public and interested parties prior to approving the WMP.

B. Presentation and Approval

(1) On June 15, 2020, Azusa staff presented the WMP at a properly noticed public meeting of the City Council, which was also televised on a local channel, and the WMP was unanimously approved by the Azusa City Council after receiving the presentation and public comment.

(2) The WMP will be updated by staff and re-approved by City Council annually.

C. Independent Evaluation

This WMP has been reviewed by a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. A report from the independent evaluator was presented at a properly noticed City Council meeting on June 15, 2020 and is posted on Azusa's website.

EXHIBIT A

CITY OF AZUSA DESCRIPTION

City of Azusa

The City of Azusa (“Azusa”) was founded in 1887 and incorporated as a general law city on December 29, 1898. The City is located in the County of Los Angeles, situated 27 miles northeast of the City of Los Angeles, and nestled against the San Gabriel Mountain foothills. The City of Azusa encompasses 9.13 square miles and has a population of approximately 45,000. Educational facilities include 9 public elementary / middle schools, 2 public high schools, 1 private school, and 1 private university.

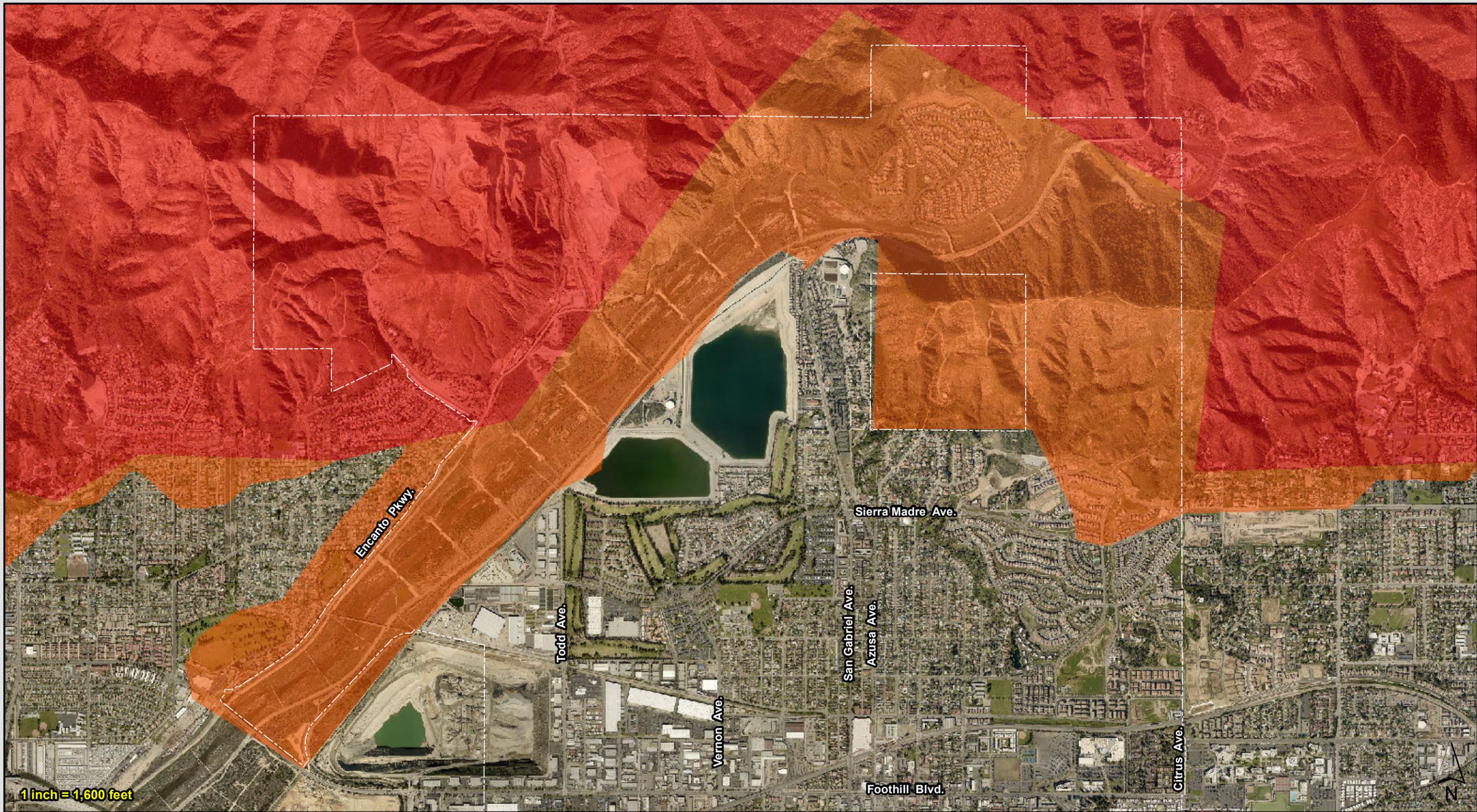
Light & Water Department

The Light & Water Department operates and maintains the electric and water utilities for the City and serves approximately 16,500 electric and 23,000 water customers. The Azusa electric utility was the successor to Azusa Electric Light & Power Company purchased in 1904 for \$2,300 and formally established its municipal electric utility. Electricity was purchased wholesale from the Sierra Electric Company and then distributed retail to our citizens and businesses. After Southern California Edison acquired Sierra Electric Company in 1917, Azusa began to buy electricity wholesale from SCE. In the early 1980s, Azusa joined several other California municipal utilities allowing the Department to purchase energy in the open market.

Azusa is a Distribution Provider, Load Serving Entity, and Scheduling Coordinator operating within the California Independent System Operator (CAISO) Balancing Authority. Azusa has no wholesale generation facilities, and all power is imported through two 69 kV substations interconnected with Southern California Edison Company, the adjacent Transmission Operator.

Azusa’s electric distribution feeders operate at 12 kV, and they are both overhead and underground. All newly constructed distribution facilities are required to be underground, and 100% of the existing facilities located in Fire Threat Area are underground facilities, which fully mitigates Azusa’s wildfire ignition risk.

EXHIBIT B
CPUC FIRE THREAT ZONES IN AZUSA



California Public Utilities Commission

- CPUC Fire-Threat Tier 2 (Elevated)
- CPUC Fire-Threat Tier 3 (Extreme)



EXHIBIT C

AZUSA ELECTRIC DISTRIBUTION FACILITIES
IN FIRE THREAT AREA

CITY OF AZUSA

12 KV ELECTRIC DISTRIBUTION FACILITIES IN CPUC TIER 2 AND TIER 3 FIRE THREAT AREAS

CIRCUITS IN VERY HIGH FIRE HAZARD SEVERITY ZONES

- CPUC TIER 2 FIRE THREAT AREA
- CPUC TIER 3 FIRE THREAT AREA
- OWL CIRCUIT UG IN LINES IN TIER 2 ZONE
- SIERRA MADRE CIRCUIT UG LINES IN TIER 2 ZONE
- SIERRA MADRE CIRCUIT OVERHEAD LINES
- HILLTOP CIRCUIT OVERHEAD LINES
- HILLTOP CIRCUIT UNDERGROUND LINES
- OWL CIRCUIT OVERHEAD LINES



CIRCUIT LEGEND

- A-ALAMEDA
- A-AMFORGE
- A-ANGELENO
- A-AZUSA
- A-BREWERY
- A-CERRITOS
- A-CONEY
- A-HILLTOP
- A-IRVINDALE
- A-OWL
- A-PARAMOUNT
- A-PASADENA
- A-ROCKVALE
- A-SIERRA MADRE
- A-TODD
- A-VERNON
- K-ARROW
- K-GLADSTONE
- K-JACKSON
- K-VINCENT

UNDERGROUND
ELECTRIC FACILITIES
IN TIER 2 ZONE

UNDERGROUND
ELECTRIC FACILITIES
IN TIER 2 ZONE

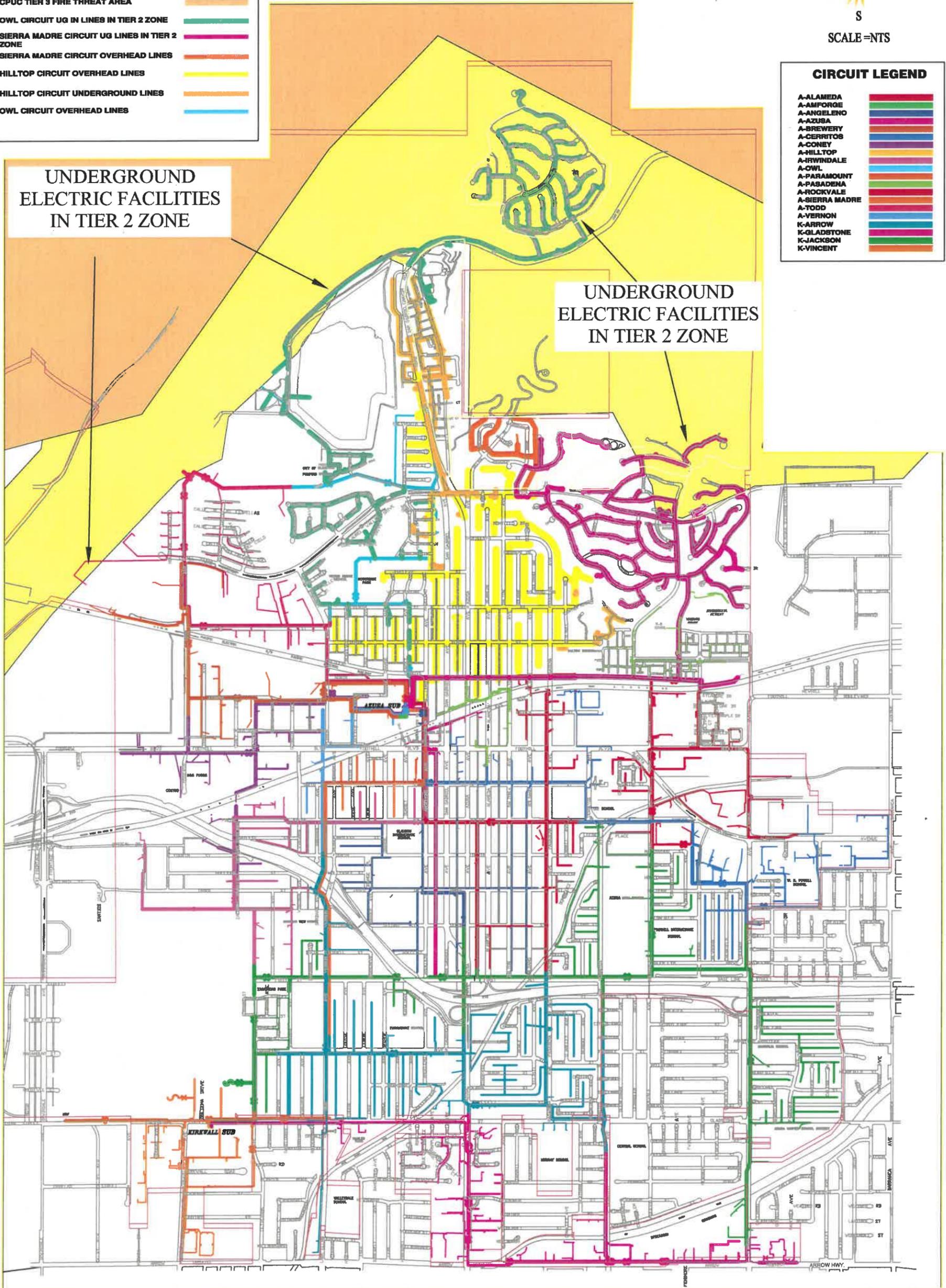


EXHIBIT D
STATUTORY COMPLIANCE MATRIX

PUC 8387	STATUTORY REQUIREMENT	Azusa WMP Section
(a)	Each local publicly owned electric utility and electrical cooperative shall construct, maintain, and operate its electrical lines and equipment in a manner that will minimize the risk of wildfire posed by those electrical lines and equipment.	5.
(b) (1)	The local publicly owned electric utility or electrical cooperative shall, before January 1, 2020, prepare a wildfire mitigation plan. After January 1, 2020, a local publicly owned electric utility or electrical cooperative shall prepare a wildfire mitigation plan annually and shall submit the plan to the California Wildfire Safety Advisory Board on or before July 1 of that calendar year. Each local publicly owned electric utility and electrical cooperative shall update its plan annually and submit the update to the California Wildfire Safety Advisory Board by July 1 of each year. At least once every three years, the submission shall be a comprehensive revision of the plan.	8.B.
(b) (2)	<p>The wildfire mitigation plan shall consider as necessary, at minimum, all of the following:</p> <p>(A) An accounting of the responsibilities of persons responsible for executing the plan.</p> <p>(B) The objectives of the wildfire mitigation plan.</p> <p>(C) A description of the preventive strategies and programs to be adopted by the local publicly owned electric utility or electrical cooperative to minimize the risk of its electrical lines and equipment causing catastrophic wildfires, including consideration of dynamic climate change risks.</p> <p>(D) A description of the metrics the local publicly owned electric utility or electrical cooperative plans to use to evaluate the wildfire mitigation plan's performance and the assumptions that underlie the use of those metrics.</p>	<p>7.</p> <p>1.B.</p> <p>5.</p> <p>7.</p>

	<p>(E) A discussion of how the application of previously identified metrics to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.</p> <p>(F) Protocols for disabling reclosers and deenergizing portions of the electrical distribution system that consider the associated impacts on public safety, as well as protocols related to mitigating the public safety impacts of those protocols, including impacts on critical first responders and on health and communication infrastructure.</p> <p>(G) Appropriate and feasible procedures for notifying a customer who may be impacted by the deenergizing of electrical lines. The procedures shall consider the need to notify, as a priority, critical first responders, health care facilities, and operators of telecommunications infrastructure.</p> <p>(H) Plans for vegetation management.</p> <p>(I) Plans for inspections of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.</p> <p>(J) A list that identifies, describes, and prioritizes all wildfire risks, and drivers for those risks, throughout the local publicly owned electric utility's or electrical cooperative's service territory. The list shall include, but not be limited to, both of the following:</p> <p>(i) Risks and risk drivers associated with design, construction, operation, and maintenance of the local publicly owned electric utility's or electrical cooperative's equipment and facilities.</p> <p>(ii) Particular risks and risk drivers associated with topographic and climatological risk factors throughout the different parts of the local publicly owned electric utility's or electrical cooperative's service territory.</p>	<p>7.</p> <p>5.C.</p> <p>6.</p> <p>5.D.</p> <p>5.B.</p> <p>3. & 4.</p> <p>3.</p> <p>3. & 4.</p>
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	<p>(K) Identification of any geographic area in the local publicly owned electric utility's or electrical cooperative's service territory that is a higher wildfire threat than is identified in a commission fire threat map, and identification of where the commission should expand a high fire-threat district based on new information or changes to the environment.</p> <p>(L) A methodology for identifying and presenting enterprise wide safety risk and wildfire-related risk.</p> <p>(M) A statement of how the local publicly owned electric utility or electrical cooperative will restore service after a wildfire.</p> <p>(N) A description of the processes and procedures the local publicly owned electric utility or electrical cooperative shall use to do all of the following:</p> <p>(i) Monitor and audit the implementation of the wildfire mitigation plan.</p> <p>(ii) Identify any deficiencies in the wildfire mitigation plan or its implementation, and correct those deficiencies.</p> <p>(iii) Monitor and audit the effectiveness of electrical line and equipment inspections, including inspections performed by contractors, that are carried out under the plan, other applicable statutes, or commission rules.</p>	<p>3.</p> <p>4.</p> <p>6.</p> <p>7.</p> <p>7.</p> <p>7.</p>
(b) (3)	<p>The local publicly owned electric utility or electrical cooperative shall, on or before January 1, 2020, and not less than annually thereafter, present its wildfire mitigation plan in an appropriately noticed public meeting. The local publicly owned electric utility or electrical cooperative shall accept comments on its wildfire mitigation plan from the public, other local and state agencies, and interested parties, and shall verify that the wildfire mitigation plan complies with all applicable rules, regulations, and standards, as appropriate.</p>	<p>8.A. & 8.B.</p>

(c)	The local publicly owned electric utility or electrical cooperative shall contract with a qualified independent evaluator with experience in assessing the safe operation of electrical infrastructure to review and assess the comprehensiveness of its wildfire mitigation plan. The independent evaluator shall issue a report that shall be made available on the internet website of the local publicly owned electric utility or electrical cooperative, and shall present the report at a public meeting of the local publicly owned electric utility's or electrical cooperative's governing board.	8.C.
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