INDUSTRY PUBLIC UTILITIES
ELECTRICAL UTILITY

WILDFIRE MITIGATION PLAN

VERSION 5

June 13, 2024

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I. OVERVIEW

A. POLICY STATEMENT

City of Industry ("COI" or "City") is a California charter city, located in Los Angeles County, approximately 12 square miles in area. It is mostly an industrial city and according to the 2020 Census, it is home for over 3,000 businesses and approximately 264 residents. The electrical service to most of the customers in the city is provided by Southern California Edison (SCE). On February 22, 2001, the City Council adopted Ordinance No. 664 (Codified as Title 7 of the Industry Municipal Code), establishing a public utilities department to oversee the operations of the public utility (the utility is hereinafter referred to as the "Industry Public Utilities" or the "IPU"). The IPU currently provides electrical service to approximately 162 customers with peak demand of 8 MW, and annual energy sales of approximately 42,000 MWh. IPU's overarching goal is to provide safe, reliable, and economic electric service to the local community. To meet this goal, the IPU constructs, maintains, and operates its electrical lines and equipment in a manner that minimizes the risk of catastrophic wildfire posed by its electrical lines and equipment. All IPU electrical lines are underground.

B. PURPOSE OF THE WILDFIRE MITIGATION PLAN

The IPU is in a region of the state with a low wildfire risk. No part of the IPU's service territory is in or near the High Fire Threat District designated in the California Public Utilities Commission's ("CPUC") Fire Threat Map, and all IPU service territory is designated as "non-fuel" or "moderate" in the California Department of Forestry and Fire Protection's ("CALFIRE") Fire and Resource Assessment Program ("FRAP") Fire Threat Map. Based on a review of local conditions and historical fires, IPU has determined that its electrical lines and equipment do not pose a significant risk of catastrophic wildfire.

Moreover, the IPU's entire 12,000-volt electric distribution system is located underground in conduit and vaults and has no overhead distribution lines. IPU does not own, operate, or maintain any transmission or sub-transmission lines except two short underground 66,000- Volt taps less than 150 feet long which run from Southern California Edison's ("SCE") 66,000-Volt Grand Crossing Substation to the IPU owned Waddingham 66,000-Volt to 12,000-Volt Substation. Waddingham Substation has above-ground equipment such as open 66,000-Volt ring bus, circuit breakers, disconnect switches, power transformers, and 12,000-volt cable connections from low side of power transformers to the enclosed 12,000- volt switchgear and control buildings A and B. Two other IPU interconnections were made with SCE are located at the Pacific Palms Hotel and at the

Anaheim- Puente Road city owned parcel to the west of the northerly end of the street via an underground 12,000- volt distribution system. All distribution lines emanating from Waddingham substation are underground and all future distribution lines will be underground. Most IPU customers are served from underground distribution via above-ground pad mounted switches and transformers with few exceptions of subsurface equipment for streetlight power sources and miscellaneous other small services.

Historically, underground electric lines have not been associated with catastrophic wildfires. The undergrounding of electric lines serves as an effective mitigation measure to reduce the potential of power-line ignited wildfires. Based on a review of local conditions and historical fires, IPU has determined that its electrical lines and equipment do not pose a significant risk of catastrophic wildfire.

Despite this low risk, IPU takes appropriate actions to help the region prevent and respond to the increasing risk of devastating wildfires. In its role as a public agency, IPU closely coordinates with other local safety and emergency officials (Los Angeles County Fire and Sheriff Departments) to help protect against fires and respond to emergencies. In its role as a utility, IPU follows all applicable design, construction, operation, and maintenance requirements that reduce safety risks associated with its system. This Wildfire Mitigation Plan describes the safety-related measures that IPU follows to reduce its risk of causing wildfires, including its various programs, policies, and procedures.

This plan is subject to direct supervision by the Industry Public Utilities Commission and is implemented by the Public Utilities Director. This plan complies with the requirements of Public Utilities Code Section 8387 for publicly owned electric utilities to prepare and get approval from IPUC on a wildfire mitigation plan by January 1, 2020, and submit to CPUC before July 1, 2020, and annually update and submittal thereafter. This plan also complies with the requirements of SB 901, SB111 and SB1054.

C. INFORMATION ABOUT ELECTRICAL UTILITY

Table 1: Context-Setting Information

Utility Name	**Industry Public Utilities**	
Service Territory Size	2 square miles	
Owned Assets	☐ Transmission x Distribution ☐ Generation	
Number of Customers Served	162 customer meters	
Population Within Service Territory	15 residential customers meters	
	Number of Accounts	*Share of Total Load (MWh)*

Customer Class Makeup	15 Residential; 61 Small/Medium Business; 86 Commercial/Industrial	0.4 % Residential; 1.5 % Small/Medium Business; 98.1 % Commercial/Industrial
Service Territory Location/Topography[1]	100 % Urban	
Service Territory Wildland Urban Interface[2] **(based on total area)**	See attached map.	
Percent of Service Territory in CPUC High Fire Threat Districts (based on total area)	Includes maps not applicable. Tier 2: 0% Tier 3: 0%	
Prevailing Wind Directions & Speeds by Season	☐ Includes maps Santa Ana wind conditions usually happen during summer months from May to October but can happen outside summer months. Santa Ana winds are strong gusty winds with speeds which can range from 30 miles per hour as much as 90 miles per hour.	
Miles of Owned Lines Underground and/or Overhead	Overhead Dist.: 0 miles Overhead Trans.: 0 miles Underground Dist.: 15 circuit miles Underground Trans.: 0 miles	
	Explanatory Note 1 - *Methodology for Measuring "Miles":* 15 circuit miles with multiple circuits in the same duct bank.	
	Explanatory Note 2 – *Description of Unique Ownership Circumstances:* None	
	Explanatory Note 3 – *Additional Relevant Context:* all IPU's electric infrastructure is within the IPU service territory	
Percent of Owned Lines in CPUC High Fire Threat Districts	*Overhead Distribution Lines as % of Total Distribution System (Inside and Outside Service Territory)*	
	Tier 2: 0 % Tier 3: 0 %	
	Overhead Transmission Lines as % of Total Transmission System	

[1] This data shall be based on the California Department of Forestry and Fire Protection, California Multi-Source Vegetation Layer Map, depicting WHR13 Types (Wildlife Habitat Relationship classes grouped into 13 major land cover types) *available at*: https://www.arcgis.com/home/item.html?id=b7ec5d68d8114b1fb2bfbf4665989eb3.

[2] This data shall be based on the definitions and maps maintained by the United States Department of Agriculture, as most recently assembled in *The 2010 Wildland-Urban Interface of the Conterminous United States*, *available at* https://www.fs.fed.us/nrs/pubs/rmap/rmap_nrs8.pdf.

	(Inside and Outside Service Territory)
	Tier 2: 0 % Tier 3: 0 %
Customers have ever lost service due to an IOU PSPS event?	☐ Yes ☒ No
Customers have ever been notified of a potential loss of service to due to a forecasted IOU PSPS event?	☐ Yes ☒ No
Has developed protocols to pre-emptively shut off electricity in response to elevated wildfire risks?	☐ Yes ☒ No. All IPU distribution circuits are underground with minimal opportunity for any wildfire originating from IPU distribution system. IPU has three interconnections with Southern California Edison (SCE). One interconnection connects to SCE's 66,000-Volts overhead sub transmission lines. The other two connect to SCE's 12,000 Volts overhead distribution lines.
Has previously pre-emptively shut off electricity in response to elevated wildfire risk?	☐ Yes ☒ No If yes, then provide the following data for calendar year 2020:

Table 2: Cross References to Statutory Requirements

Requirement	Statutory Language	Location on WMP
Persons Responsible	**PUC § 8387(b)(2)(A):** An accounting of the **responsibilities of persons** responsible for executing the plan.	Section III-B Page 8
Objectives of the Plan	**PUC § 8387(b)(2)(B):** The **objectives** of the wildfire mitigation plan.	Section II Page 7
Preventive Strategies	**PUC § 8387(b)(2)(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.	Section V Pages 15

Evaluation Metrics	**PUC § 8387(b)(2)(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.	Section VII-A Page 19
Impact of Metrics	**PUC § 8387(b)(2)(E):** A discussion of how the **application of previously identified metrics** to previous wildfire mitigation plan performances has informed the wildfire mitigation plan.	Section VII-B Page 22
Deenergization Protocols	**PUC § 8387(b)(2)(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.	Section V-D,F Pages 17-18
Customer Notification Procedures	**PUC § 8387(b)(2)(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.	Section V-G,J Page 18
Vegetation Management	**PUC § 8387(b)(2)(H):** Plans for vegetation management.	Section IV-C Page 14
Inspections	**PUC § 8387(b)(2)(I): Plans for inspections** of the local publicly owned electric utility's or electrical cooperative's electrical infrastructure.	Section V-C Page 16
Prioritization of Wildfire Risks	**PUC § 8387(b)(2)(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: **(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. **(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.	Section IV-B&C Pages 13-14
CPUC Fire Threat Map Adjustments	**PUC § 8387(b)(2)(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	Section 1-B Page 1 Section V-A Page 15

	map, and identification of where the commission should expand a high fire threat district based on new information or changes to the environment.	
Enterprise-wide Risks	**PUC § 8387(b)(2)(L):** A methodology for identifying and presenting **enterprise-wide** safety risk and wildfire-related risk.	Section V-F Page 17
Restoration of Service	**PUC § 8387(b)(2)(M):** A statement of how the local publicly owned electric utility or electrical cooperative will **restore service after a wildfire**.	Section VI Page 18
Monitor and Audit	**PUC § 8387(b)(2)(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 (i) **Monitor and audit** the implementation of the wildfire mitigation plan. (ii) **Identify any deficiencies** in the wildfire mitigation plan or its implementation and correct those deficiencies. (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.	Section VII-C & VII-D Pages 19&22
Qualified Independent Evaluator	**PUC § 8387(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 Web site 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.	Section VIII Page 23

D. ORGANIZATION OF THE WILDFIRE MITIGATION PLAN

This Wildfire Mitigation Plan includes the following elements:

- Objectives of the plan
- Roles and responsibilities for carrying out the plan.
- Identification of key wildfire risks and risk drivers
- Description of wildfire prevention, mitigation, and response strategies and programs

- Metrics for evaluating the performance of the plan and identifying areas for improvement.
- Review and validation of the plan

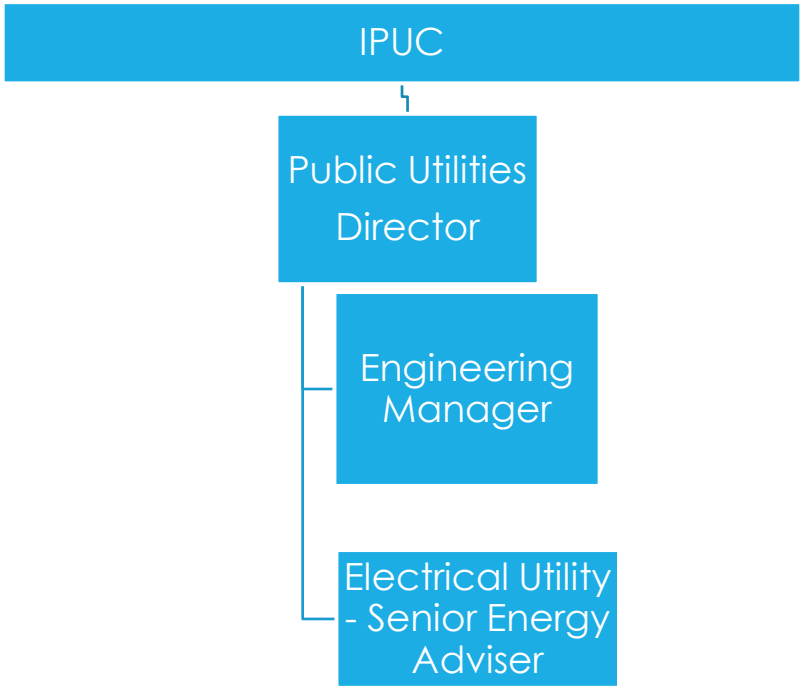
II. OBJECTIVES OF THE WILDFIRE MITIGATION PLAN

The primary goal of this Wildfire Mitigation Plan is to describe IPU's existing programs, practices, and measures that effectively reduce the probability that IPU's electric supply system could be the origin or contributing source for the ignition of a wildfire. To support this goal, IPU regularly evaluates the prudent and cost-effective improvements to its physical assets, operations, and training that can help reduce the risk of equipment-related fires.

The secondary goal of this Wildfire Mitigation Plan is to improve the resiliency of the electric grid. As part of the development of this plan, IPU assesses new industry practices and technologies that will reduce the likelihood of an interruption (frequency) in service and improve the restoration (duration) of service.

III. ROLES AND RESPONSIBILITIES

A. UTILITY GOVERNANCE STRUCTURE



B. SUPERVISION AND IMPLEMENTATION OF PLAN

This plan is subject to direct supervision by the Industry Public Utilities Commission and will be implemented by the Industry Public Utilities Director. Pursuant to Section 7.04.020 of the City of Industry Municipal Code, the City Council serves as the Commissioners of the IPUC, and the City Manager serves as the Public Utilities Director. The City's Engineering Manager serves as Engineer to the IPUC along with the Electric Utility – Senior Energy Adviser for this WMP Roles and Responsibilities for execution of plan.

Executive Level Responsibility: The Public Utilities Director (PUD) will oversee implementation of the Plan and ensure that staff follow procedures and protocols. PUD will manage the execution of performance monitoring which includes providing guidance to IPU staff and leading the development of any reports required.

The table below describes the proposed assignments and are subject to change.

Assignment	Lead Personnel	Key Technical Personnel
IPU Wildfire Prevention and Improved Response Program	1. PUD 2. Local Los Angeles County Fire Department Station	1. IPU- Engineering Manager 2. Electrical Utilities - Senior Energy Adviser

		3. Local LA County Fire Department
Public Safety and Notification	1. PUD 2. IPU Engineering Manager 3. IPU- Electrical Senior Energy Manager	1. IPU Contractor – ENCO 2. LA County Emergency Operations Center 3. City and IPU Staff as required
Enhanced Inspections and Operational Practices	1. IPU- Electrical Senior Energy Adviser	1. IPU Staff – Inspectors 2. IPU Contractors – PUI & ENCO
Wildfire Response and Recovery	1. PUD 2. Local Los Angeles County Fire Department Station	1. IPU- Electrical Senior Energy Adviser 2. Engineering Manager 3. Local LA County Fire Department
Coordination with Los Angeles County Sheriff's and LA County Public Works Department	1. PUD 2. Local Los Angeles County Fire Department Station	1. CNC Engineering for LA County Public Works Department
Coordination with other City Departments	1. Engineering Manager	1. CNC Engineering

C. ROLE IN WILDFIRE PREVENTION

IPU – Electrical staff roles and responsibilities for (1) electric facility design, maintenance, and inspection; and (2) Vegetation Management if required.

- Operate system in a manner that will minimize potential wildfire risks.
- Take all reasonable and practicable actions to minimize the risk of a catastrophic wildfire caused by IPU electric facilities.
- Coordinate with federal, state, and local fire management personnel as necessary or appropriate to implement IPU Wildfire Mitigation Plan.
- Immediately report fires, pursuant to existing IPU practices and the requirements of this Wildfire Mitigation Plan.
- Take corrective action when the staff witnesses or is notified that fire protection measures have not been properly installed or maintained.
- Comply with relevant federal, state, and industry standard requirements, including the industry standards established by the California Public Utilities Commission.

D. WILDFIRE RESPONSE AND RECOVERY

Los Angeles County Fire Department ("LACFD") is the lead agency, in cooperation with City of Industry and IPU, for implementation of the Wildfire Response Program. LACFD will direct IPU regarding public safety priorities. IPU Staff's role in response to wildfire is set forth in Section E ("SEMS") and during the recovery process is set forth in Section VI. As mentioned above under the roles and responsibilities, IPU will coordinate with LAC personnel from the Sheriff's Department and Emergency Operations Center for situational awareness and other public safety issues. The IPU will also coordinate with LAC Department of Public Works ("LACDPW") and other local water and wastewater companies to ensure power to these critical facilities.

E. STANDARDIZED EMERGENCY MANAGEMENT SYSTEM (SEMS)

IPU is located within the County of Los Angeles and will assist in the functioning of Emergency Operations Center if required depending on the situation and the request from the lead agency. As a local governmental agency, IPU has planning, communication, and coordination obligations pursuant to the California Office of Emergency Services' Standardized Emergency Management System ("SEMS") Regulations, adopted in accordance with Government Code section 8607. The SEMS Regulations specify roles, responsibilities, and structures of communications at five different levels: field, local, operational area, regional, and state.

SEMS Five Level Response Coordination	
SEMS Level	Agency
Field	LAC Fire Department
Local	IPU and City
Operational Area	LAC EOC with Area D
Regional	California OES - Southern Region
State	California OES

The five levels of emergency response organization are activated only as needed. Roles and responsibilities provide a coordinated response to emergencies.

1. Field level: LAC Fire Department commands emergency response personnel and resources to carry out tactical decisions in direct response to incidents.
2. Local level: IPU and City manage the overall emergency response and recovery activities within their jurisdictions. Pursuant to this structure, IPU will coordinate and communicate with the relevant safety agencies as well as other relevant local and state agencies as required. The IPU via LACFD and LACDPW works closely with Los Angeles County to coordinate emergency operations.
3. Operational Area level: LAC EOC, with Area D, manages and coordinates information, resources, and priorities among local governments and special districts within the

operational area. It acts as the liaison between the local level and the regional and state levels.

4. Regional level: The State's OES – Southern Region manages and coordinates information and resources among operational areas within mutual aid region and between Operational Areas and the State level.
5. State level: California Governor's Office of Emergency Services manages state resources in response to the emergency needs of the other levels, manages and coordinates mutual aid among the mutual aid regions and between the regional level and state level, and coordinates with the federal disaster response system.

IPU, in cooperation with the city, maintains good relations with Los Angeles County, which prepares, responds, and assists with recovery from emergencies and natural disasters.

- Los Angeles County (LAC) also coordinates and maintains the county Emergency Operations Center (EOC). The LAC EOC is activated during a major incident such as a wildfire to carry out the principles of emergency operations and management between multiple agencies.
- LAC has a direct link to the California Governor's Office of Emergency Services during disasters or any other critical incident. In the event of a major incident, LAC can work with the City and CAL OES to obtain a Presidential proclamation declaring the event as a national emergency.
- LAC works closely with other local agencies and acts as a point of contact for local agencies to California Governor's Office of Emergency Services.

LAC has identified wildland fires as one of the specific hazards that impact the county. LAC's Board of Supervisors has approved emergency and disaster plans and annexes (https://ceo.lacounty.gov/emergencydisaster-plans-and-annexes/), including the Operational Area Emergency Response Plan (OAERP) to establish the coordinated emergency management system for prevention, protection, response, recovery and mitigation activities within the Operational Area. LAC's OAERP conforms to SEMS.

Under the SEMS structure, a significant amount of preparation is done through advanced planning at the county level, including the coordination of public, private, and nonprofit organizations. LAC's Board of Supervisors established the LAC Operational Area on July 5, 1995. LAC serves as the lead agency of this Operational Area and is guided by the Los Angeles County Disaster Council that is made up of representatives of local agencies. The Operational Area includes local and regional organizations that bring relevant expertise to the wildfire prevention and recovery planning process. It is divided into eight Disaster Management Areas to coordinate management, planning, training, and preparedness actions. The IPU is located in Disaster Management Area D. Area D

participants and partners include the cities of Arcadia, Azusa, Baldwin Park, Bradbury, Claremont, Covina, Diamond Bar, Duarte, El Monte, Glendora, Industry, Irwindale, La Puente, La Verne, Monrovia, Pomona, Rosemead, San Dimas, Sierra Madre, South El Monte, Temple City, Walnut, and West Covina; County of Los Angeles Sheriff's Department; Hacienda La Puente Unified School District; the American Red Cross; and California State Polytechnic University, Pomona. City Staff, representing itself and IPU, attend the regular monthly Area D meetings.

Pursuant to the SEMS structure, IPU will participate if required in annual training exercises.

In the event of a potential or actual incident, IPU will contact LAC Office of Emergency Management for use of their mass notification system to receive alerts and notifications to impacted jurisdictions. The benefit of using the County's notification system is it decreases the possible spread of contradictory information due to use of multiple messaging platforms. IPU will also notify its customers by email and phone calls as required under the circumstances. IPU will use its website and other social media platforms to send alerts and notifications, as needed. Potential impacted jurisdictions are:

Name	Contact Information
LAC OEM	
Fire Station 118 – 17056 Gale Ave., Industry	(626) 854-3488
Sheriff Station – Industry	(626) 330-3322
Frontier Communications- Aerial Fatalla	(714) 375 -6717
Frontier Communications – Don Beckermann	(626) 666-3526
SCE – Andrew Lopez	(909) 286-5964
Southern California Gas Company- Orange Coast Headquarters- Jeff Schenkleberg	(714) 634-3191
Rowland Water District – Allen Davidson	(562) 697-1726
Walnut Valley Water District – Tai Diep	(909) 595-1268 ext.230
City of Industry	(626) 333-2211
Area D DMAC	(909) 394-3399
Pacific Palms Resort	(626) 810-4455
Industry Hills Expo Center	(626) 330-0324
IPU customers	IPU/ENCO maintains a customer list

IV. WILDFIRE RISKS AND DRIVERS ASSOCIATED WITH DESIGN, CONSTRUCTION, OPERATION, AND MAINTENANCE

A. BACKGROUND

Like most areas of Southern California, the City of Industry and IPU service territory typically experiences cool, wet winters and hot dry summers, creating extreme fire conditions from May through October, especially during the Santa Ana Wind conditions which may happen outside the hot months. Daily temperatures during the fire season from June to October are usually above 90 degrees Fahrenheit, and humidity can vary from day to day, with some days experiencing humidity in the single digits. The IPU service area is mostly an urban area without many trees or any wooded/brush area except for the Industry Business Center ("IBC"). The IBC is an area of approximately 600 acres that is currently under development. The area currently consists of vacant land with some dry brush or grass on the project site. There are no IPU overhead lines in that area or its vicinity with no significant risk of initiating any wildfire. The city is working to keep the grass areas of the IBC green and reduce potential for dry brush. All existing electrical lines at the IBC are underground and will be underground in future.

As mentioned earlier, the potential and risk of wildfire originated from the electrical lines owned, operated, and maintained by IPU is low, because the IPU's entire 12,000- volt electric distribution system is located underground in conduit and vaults, and the IPU has no overhead distribution lines. Historically, underground lines have not been associated with catastrophic wildfires.

B. ENTERPRISE SYSTEM, OUTAGES AND OPERATIONAL/SAFETY RISK

As previously mentioned, IPU is a very small publicly owned utility, and below the minimum requirements of National Electric Reliability Council ("NERC") and Western System Coordinating Council (WSCC) of 25 megawatts, to maintain records and report power outages with annual reliability matrixes. IPU does not own, operate, or maintain any transmission lines and all distribution lines are underground and future distribution lines will be underground. Based on the foregoing, the IPU has determined that its electrical lines and equipment do not pose a significant risk of catastrophic wildfire. Despite this low risk, IPU takes appropriate actions to help the region prevent and respond to the increasing risk of devastating wildfires. Some of the actions include:

1. IPU will purchase and use better quality equipment such as underground distribution cable with Ethylene Propylene (EPR) Insulation instead of Crosslinked Polyethylene (XLP) which is less prone to premature cable failure and potential for arcing.

2. CPCU GO 165 requires detailed distribution inspections on a 5-year cycle and the IPU will comply with it . That inspection will include a visual and detailed inspection

of the current condition and to confirm that all the underground structures, pad mount switches and pad mount transformers are functioning normal and catch anything which isn't functioning as designed and take action to correct it.

3. IPU will perform a relay protection coordination study for each of the six 12,000-Volt distribution feeders originating from the Waddingham Substation.. This study will include protection coordination of substation feeder relays with the downstream protective devices of fuses in the pad mount switches and pad mounted transformers and fine- tune the relay settings to make sure that any electrical fault on these distribution lines is cleared as quickly as possible and any faulted part of circuit isolated to reduce the potential risk of any arc.

C. PARTICULAR RISKS AND RISK DRIVERS ASSOCIATED WITH TOPOGRAPHIC AND CLIMATOLOGICAL RISK FACTORS

Within IPU's service territory and the surrounding areas, the primary risk drivers for wildfire are the following:

- Extended drought - Southern California just went through extended drought condition starting from December 27, 2011, to March 5, 2019, and lasted 376 weeks. Most of the state of California is experiencing drought conditions at this time again.
- Vegetation type - The IPU service territory is mostly urban with very few trees on the city streets. Waddingham Substation, with above ground equipment, has vacant land at the front entrance with some dry grass and weeds, which are routinely removed and has no vegetation on the other three sides of the substation. The IBC Development that is approximately 600 acres, has vacant land with dry grass and other brush on site and adjacent to it. Industry Hills near Pacific Palms Hotel and Expo areas have lot of trees and dry brush, but there are no overhead electrical lines at the Expo Center and Pacific Palms hotel areas. The Anaheim-Puente Interconnection is underground from the SCE owned overhead distribution line from the SCE Switching Station on the adjacent parcel and has no vegetation around it.
- Vegetation Density - Low to moderate except in the Industry Hills and Expo area and low in other areas.
- Weather - Summer is usually hot dry with daily temperatures usually above 90-degree Fahrenheit from June to October months. Winter is cool and wet and most of 14.68 average annual rain between months of November and March. The average annual temperature is 77 degrees Fahrenheit. Humidity can vary from day to day and can be in single digits in hot summer months from May to October and creating extreme fire conditions in combination with Santa Ana Winds.

- High winds - Santa Ana Wind conditions normally happen during summer months from May to October and can also happen outside the hot months. Santa Ana Winds are strong gusty winds with speeds which can range from 30 miles per hour to as much as 90 miles per hour.
- Terrain - there is more significant terrain variation at the IBC and at the Pacific Palms Resort area.
- Changing Weather Patterns (Climate Change) - IPU recognizes that climate change is forecasted to increase the frequency and severity of catastrophic wildfires in California. Accordingly, IPU has reviewed relevant sources of data showing wildfire-related climate change impacts in California and specifically in the City of Industry through the Cal-Adapt enterprise collaboration. This review included data on forecasted acres burned and wildfire probability,[3] as well as extreme heat days,[4] and extended drought.[5] IPU has determined that, because of IPU's small size, the impacts of climate change are likely to affect IPU's entire service territory evenly and that IPU's undergrounded distribution system is a highly effective mitigation against any increased risks due to climate change.
- Communities at Risk - Besides the City of industry, other adjacent cities of Diamond Bar, Walnut and La Puente may be impacted but the chances are slim.
- Fire History- There is no known history of wildfires in the area served by IPU.

V.WILDFIRE PREVENTATIVE STRATEGIES AND PROGRAMS

A. CPUC HIGH FIRE THREAT DISTRICT

IPU did not directly participate in the development of the CPUC's Fire-Threat Map, which designates a High-Fire Threat District.

IPU has reviewed the proposed boundaries of the High Fire Threat District and confirmed that, based on local conditions and historical fire data, all IPU's service territory was properly excluded, and has no tier 2 or tier 3 fire threat area as of June 2021. IPU does not need to incorporate the High Fire Threat District into its construction, inspection, maintenance, repair, and clearance practices, until CPUC Fire Threat Map is revised to show any area served by IPU falls with it, but IPU will continue to follow those as an extra precautionary measure where applicable.

B. DESIGN AND CONSTRUCTION STANDARDS

[3] The CalAdapt Wildfire Tool is available at https://cal-adapt.org/tools/wildfire.
[4] The CalAdapt Extreme Heat Days Tool is available at https://cal-adapt.org/tools/extreme-heat.
[5] The CalAdapt Extended Drought Tool is available at https://cal-adapt.org/tools/extended-drought.

IPU's electric facilities are designed and constructed to meet or exceed the relevant federal, state, or industry standard. IPU follows CPUC General Orders (GO) 128 as a key industry standard for design and construction of underground electrical facilities. Additionally, IPU monitors and follows, as appropriate, the National Electric Safety Code.

As described under Overview I.B on page 1, IPU's Waddingham 66,000-volt to 12,000-volt Substation has typical above ground equipment such as open 66.000- volt bus, circuit breakers, disconnect switches and power transformers and overhead cable connections to enclosed 12,000-volt switchgears and control buildings A and B. equipment. All 12,000-volt distribution circuits emanating from the substation are underground. The design and construction of the substation complied with all the applicable National Electrical Codes and the Utility Industry Practices and National Electrical Safety Codes. The maintenance of the substation meets the requirements of CPUC GO 174. As described under Section IV C- Wildfire Risks and Drivers Associated with Design, Construction, Operation and Maintenance on page 14, the substation has vacant land at the front entrance of the substation with some dry grass and weeds which is routinely removed by IPU and has no vegetation on other three sides of the substation. Above-ground substation equipment is far away from the dry grass and weeds area and has gravel around it and there is no fire risk to the electrical equipment from the grassy area in front.

Similarly, all pad mounted electrical service equipment such as the pad mounted switches and the pad mounted transformers meet utility industry design practices and require working clearances around it and mostly at the customer's premises with no vegetation close to it. The maintenance of the equipment meets the requirements of CPUC GO 165.

C. INSPECTIONS

Inspections and follow up with action items to perform required maintenance plays an important role in wildfire prevention. Currently, the IPU patrols its distribution system regularly and will comply with GO 165 requirements of 5- year inspection cycle due in November 2024.

Some of inspection activities will include more detailed inspections of pad mounted equipment such as switch blades, rusting and any other abnormal thing which can cause short- circuits and failures with an initiating arc. Similarly, for underground structures we will perform infrared tests on the cable terminators or 600 amp and 200-amp elbows if required.

If IPU staff discovers a facility in need of repair that is owned by an entity other than IPU, the IPU may issue a notice to repair to the facility owner and work to ensure that necessary repairs are completed promptly.

D. DEENERGIZATION

IPU has the authority to preemptively shut off power due to fire-threat conditions, however, this option is not likely to be used and will only be used in extraordinary circumstances. Due to the minimal risk of IPU's electrical supply facilities causing a power-line ignited wildfire, IPU is not adopting specific protocols for de-energizing any portions of its electric distribution system. IPU will re-evaluate this determination in future updates to this Wildfire Mitigation Plan.

E. SITUATIONAL AWARENESS

Presently IPU is considering installing smart electrical meters with automated metering infrastructure (AMI) to track individual customer power outages along with the outage notification system as part of the Meter Data Management System (MDMS) system. IPU's plan to upgrade to AMI and MDM would help provide situational awareness of the condition of the electrical distribution system. IPU had gone through the proposal process and selected vendors for AMI and MDMS, and installation of both AMI and MDMS is underway and expected to be completed by December 31, 2024.

IPU staff monitors weather reports from the local radio and television stations and is alert during the Santa Ana Winds and other high fire threat conditions and will attempt to not schedule any field work to be performed as a precautionary measure unless it is necessary.

F. OPERATIONAL PRACTICES

IPU will operate the electrical distribution system in a manner that will minimize potential wildfire risks including taking all reasonable and practical actions to minimize the risk of a catastrophic wildfire caused by the IPU's electrical facilities. As previously recommended by the third-party evaluator, IPU will perform a relay protection coordination study for each of the six 12,000- Volt distribution feeders originating from the Waddingham Substation.. This study will include protection coordination of substation feeder relays with the downstream protective devices of fuses in the pad mount switches and pad mounted transformers and fine- tune the relay settings to make sure that any electrical fault on these distribution lines is cleared as quickly as possible and any faulted part of circuit isolated to reduce the potential risk of any arc. Staff will take corrective

actions for deficiencies when the staff witnesses or is notified of improperly installed or maintained fire protection measures. In general, during high wildfires, threats period (red flag warnings) the IPU will perform only essential work.

G. PUBLIC SAFETY AND NOTIFICATION

The IPU will do the following to communicate with the community during high fire threat periods and disaster.

- Coordinate with LACFD and LAC Sheriff's Department
- Expand current IPU customers' notification protocol used for CAISO flex alerts and planned outages to develop communication protocol for notification to the rest of community and social media.

VI. RESTORATION OF SERVICE

In the event of a wildfire or other emergency event, IPU will coordinate the activities necessary to restore electrical service to all parties as required. The IPU will coordinate with SCE on the restoration of the three interconnection points of Waddingham 66,000 volt to 12,000-Volt Substation, Anaheim- Puente 12,000 volt and Pacific Palms Hotel 12,000-volt interconnections. Restoration of service in each specific incident may be different but the steps taken will be similar to begin the restoration process. The steps are as follows:

Assessment.

The IPU will patrol each line segment to determine the extent of damage that has occurred. The patrol will include the assessment of access to the equipment, clean/up and debris removal personal protective equipment (PPE) requirements of the crews. The IPU will work with the LACFD and LACSD as required to make sure the area is deemed safe to restore electrical power.

Planning.

After the preliminary and initial assessment, IPU Staff will discuss the plan and needed work to restore power. Any individual customer that has damage to its electrical service panel or transformer will be isolated from the pad mounted switch. Teams will focus on prioritizing the restoration efforts to most critical infrastructure needs first, such as critical water and communication facilities. IPU does not provide electric service to any potable water and sewer facilities which fall under critical facilities category, but it does provide electric service to reclaimed water facilities at Expo Center behind Pacific Palms Hotel

called “Water Tanks”, Anaheim – Puente Area to Rowland Water and then to Walnut Valley Water District (WVWD) at IBC East. IPU will put priority on the restoration of those reclaimed water facilities. (does IPU provide electric service to any critical water facilities), Pacific Palms Hotel and Waddingham Substation etc.

Mobilize and Action.

Based on the complexity of restoration efforts, the IPU will coordinate the crews and material needs as required. IPU has some contracts with material vendors for material needs but in the event of widespread catastrophic damage in the region it may become a challenge to acquire the needed material.

Restoration.

Rebuild efforts will start as soon as the areas become safe to access. Initial effort will be to restore the interconnections with SCE, first starting from the Waddingham Substation and then all 12,000- volt distribution circuits. Depending upon case by case, rebuilding or any demolition required may be done simultaneously or rebuilding first and demolitions later if safe to do so. After all distribution circuits are restored, all individual customers will be restored to power except those which have sustained damage and isolated from the circuit. After the repair or replacement of transformer and /or electrical service panel and inspection certification if needed, the remaining customers will be restored.

VII. EVALUATING OF THE PLAN

A. METRICS AND ASSUMPTIONS FOR MEASURING PLAN PERFORMANCE

IPU tracks both performance metrics and outcome metrics to measure the effectiveness of this Wildfire Mitigation Plan. The performance metrics that IPU tracks are leading indicators that describe actions that are intended to reduce the risk of utility caused wildfires. Because the only above-ground components of IPU’s system are substations, the only performance metric is the number of routine inspections performed on those substations. There is no vegetation in proximity to either of IPU’s above-ground substations, so there is no performance metric relating to vegetation management. The outcome metrics tracked by IPU are lagging indicators that measure outcomes that may be associated with an increased risk of utility-caused wildfires. These outcome metrics include outages, ignitions, and level 1 safety hazards.

B. METRICS

Performance Metrics								
Metric type	**Progress Metric**			(Completed) **2023**	(Forecast) **2024**	(Forecast) **2025**	**Unit(s)**	**Comments**
1. Substation Interconnection (above-ground system components)	Routine Inspections			12 routine-completed	5 routine-completed. 6 routine-planned 1 major	12 routine	# routine monthly inspections and # major triennial inspections every three years.	Monthly routine inspections cover batteries, battery chargers and LTC operations etc. The last triennial major inspection was performed in October 2021. The next major triennial inspection is due in October 2024.
Outcome Metrics								
Event Category	**Cause category**			(Actual) **2022**	(Actual) **2023**	(To Date) **2024**	**Unit(s)**	**Comments**
Outage Event	Distribution			1	0	1	# outages	. **Nov. 17/18, 2022** - SCE pole replacement of overhead distribution circuit of Anaheim-Puente Interconnection caused outage to all 18 customers served from this interconnection. On April 19, there was a power outage for approximately 30 minutes to all 18 customers served from Anaheim- Puente Interconnection. It was caused by

								an SCE feeder outage serving this 12.000- volt SCE Interconnection.
Ignitions*	Distribution	0	0	0	0	0	# ignitions	0
Level 1 Safety Hazards**	Distribution	0	0	0	0	0	# hazards discovered	0

Notes:

* An "ignition" is deemed to occur if each of the following conditions is met: (1) an IPU owned or controlled facility was associated with the fire; (2) the fire was self-propagating and of a material other than electrical and/or communication facilities; (3) the resulting fire traveled greater than one linear meter from the ignition point; and (4) IPU has knowledge that the fire occurred.

**** A Level 1 Safety Hazard is defined as an immediate risk with a high potential impact to public or worker safety or to system reliability, where IPU will take corrective action immediately, either by fully repairing or by temporarily repairing and reclassifying to a lower priority.

C. IMPACT OF METRICS ON PLAN

IPU reviews these metrics to identify areas of its operations and service territory that are disproportionately impacted by outages, ignitions, or level 1 safety hazards. IPU will then evaluate potential improvements to the plan or additional mitigation measures to address any such disproportionately affected areas.

D. MONITORING AND AUDITING THE PLAN

This Wildfire Mitigation Plan is presented to IPUC on an annual basis Since IPU is a low risk POU with no overhead lines and no electrical facilities within 2.0 and 3.0 HFTD and , a qualified independent evaluator is not required to review the plan..

E. IDENTIFYING AND CORRECTING DEFICIENCIES IN THE PLAN

IPU Staff, inspectors and contractors are encouraged to identify Wildfire Mitigation Plan deficiencies to the IPU – Operations Manager as soon as possible when observed. The Operations Manager will evaluate each reported deficiency and if it is determined to be a valid deficiency, it will be entered into a log with the following information:

- Date the deficiency was discovered.
- Description of deficiency
- Source identifying the deficiency.
- Priority based on the severity.
- Corrective action required and with deadline to accomplish.
- Assigned staff for corrective action.
- Date corrective action completed.

F. MONITORING THE EFFECTIVENESS OF INSPECTIONS

As previously mentioned, IPU will endeavor to exceed the GO 165 requirement to conduct a detailed inspection on a five-year cycle, and instead, perform that inspection on a four-year inspection cycle. (see comment above) Also, IPU performed GO 165 inspections in November 2019 and plans to do it summer of 2023. Anything found that needs improvement or appear hazardous will be documented and will be given a priority with a work order and that work order will be tracked to the closure.

VIII. QUALIFIED INDEPENDENT EVALUATOR

IPU contracted with Intertie Incorporated to perform an independent evaluation of its 2020 WMP. Intertie Incorporated submitted its evaluation of IPU's 2020 WMP on December 12. This report was incorporated as Exhibit B to the 2020 WMP, which was approved by IPUC.

IPU is a fully undergrounded electric utility that is located in an completely urban geographic region. No part of IPU's service territory falls within Tier 2 or Tier 3 of the CPUC's High Fire Threat District Map. As described above, the only above-ground components of IPU's system are substations (Waddingham 66,000-volt to 12,000-volt Substation and the customer stations of pad mounted switches and pad mounted transformers for electrical services mostly at the customer premises or public right of ways in front of customer premises), which have no proximity to any vegetation that could be result in a utility-caused wildfire. Because IPU's system is already designed and operated in way that effectively mitigates against the risk of wildfires, IPU does not anticipate any substantive changes to its wildfire mitigation efforts or wildfire risks on a year-to-year basis. This lack of change means that any subsequent independent evaluation of IPU's WMP would serve little value because it would be effectively the same as the prior evaluation. Therefore, IPU will defer contracting with an independent evaluator until there is a meaningful change in IPU's system or service territory that is relevant to wildfire risk, or if IPU implements any new wildfire mitigation measures.

IX. RESPONSES TO QUESTIONS & COMMENTS FROM WSAB ON IPU WMP FROM FEBRUARY 10, 2022

1. **WSAB Guidance Note:** The WSAB appreciates Industry including update metric tracking results information for 2021 in the 2022 WMP. The WSAB notes, however, that Industry still includes a "wires down" metric and wonders whether that metric and tracking of results thereof is really useful for a utility with all underground infrastructure. The WSAB encourages Industry to develop metrics that allow for useful tracking of progress and practices, including performance metrics (inspections accomplished, goals met etc.).

   IPU Response: IPU has substantially revised its metrics table to track both performance metrics and outcome metrics that are appropriate for a fully undergrounded electric utility.

X. IPUC RESOLUTION 2024 -XX OF JUNE 13, 2024 IPUC MEETING