



## **Workshop Slides and Recording**

### **Workshop on Draft 2023-2025 Wildfire Mitigation Plan Guidelines**

The Office of Energy Infrastructure Safety (Energy Safety) held a workshop on the Draft 2023-2025 Wildfire Mitigation Plan Guidelines and related documents on October 17, 2022. A recording of the workshop can be found on Energy Safety's YouTube channel at <https://www.youtube.com/watch?v=4-SPZF6cMIE>. The slides shown during the workshop presentations are attached to this document.

# Draft 2023-2025 Guidelines Workshop

Office of Energy Infrastructure Safety

October 17, 2022



# AGENDA

Monday, October 17, 2022 | 10:00 a.m. – 4:30 p.m.

10:00 – 10:15 a.m.	<b>Introduction</b>
10:15 a.m. – 12:45 p.m.	<b>Technical Guidelines (including ITO Supplement)</b> Presentation by Energy Safety (10:15 – 10:30 a.m.) Public Comments and Questions (10:30 – 12:45 a.m.)
12:45 – 1:45 p.m.	<b>Lunch</b>
1:45 – 3:00 p.m.	<b>Maturity Model and Maturity Survey</b> Presentation by Energy Safety (1:45 – 1:55 p.m.) Public Comments and Questions (1:55 – 3:00 p.m.)
3:00 – 3:15 p.m.	<b>Break</b>
3:15 – 4:25 p.m.	<b>Process and Evaluation Guidelines / WMP Schedule</b> Presentation by Energy Safety (3:15 – 3:25 p.m.) Public Comments and Questions (3:25 – 4:25 p.m.)
4:25 – 4:30 pm	<b>Closing Remarks</b>






1. Please mute yourself during the session presentations.
2. Verbal comments and questions will be taken at the end of each session.
3. Please raise your hand on Zoom when you have a question or comment.
4. Written comments can be entered in the chat window at any time.
  - All comments will be recorded and evaluated for consideration.
  - Questions will be answered if time permits.
5. Please identify yourself to keep the discussion organized.
6. The workshop will be recorded and posted on Energy Safety's website.



- Relevant Documents
  - Draft 2023-2025 WMP Technical Guidelines
  - Draft Electrical Corporation Wildfire Mitigation Maturity Model and Maturity Survey
  - Draft 2023-2025 Process and Evaluation Guidelines
  - Draft ITO Supplement to the 2023-2025 WMP Technical Guidelines
  - Draft 2023 WMP Schedule
- Objectives of Workshop
  - Provide Overview of Guidelines Documents and Notable Changes
  - Receive Input on Guidelines Documents
  - Answer Clarifying Questions (where possible)



# Draft 2023-2025 WMP Technical Guidelines

# CHAPTER STRUCTURE



Introduction to Guidelines

General Instructions

1. Executive Summary
2. Responsible Persons
3. Statutory Requirement Checklist
4. Overview of WMP
5. Overview of the Service Territory
6. Risk Methodology & Assessment
7. Wildfire Mitigation Strategy Development

8. Wildfire Mitigations

9. Public Safety Power Shutoff

10. Lessons Learned

11. Corrective Action Program

12. Notices of Violation and Defect

Appendix A – Definitions/Glossary

Appendix B – Supporting Documentation

Appendix C – 2023-2025 Electrical Corporation Wildfire Mitigation Maturity Model (Maturity Model)

# INTRODUCTORY CHAPTERS

- Introduction to Guidelines
  - Authority
  - Purpose & Scope
- General Instructions (How to/FAQ/Expectations)
  - Narratives
  - Non-Existent Plans for Mitigation
  - Quantitative and Tabulated Responses
  - Relevant Regulations, Codes, and Standards



# CHAPTERS 1-4

## 1. Executive Summary

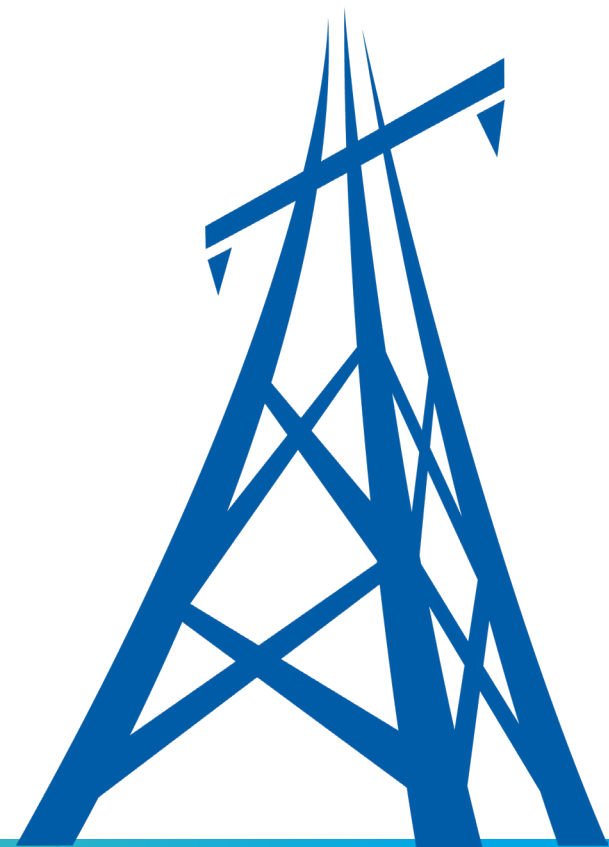
- Summary of 2020-2022 WMP Cycle  
(areas of success, areas for improvement, major lessons learned)
- Summary of 2023-2025 WMP Cycle
  - Narrative Overview
  - Mitigation Initiative Plans (3-year & 10-year outlooks)

## 2. Responsible Persons

## 3. Statutory Requirements Checklist

## 4. Overview of WMP

- Risk Reduction Objectives (e.g., reduce ignitions by x%)



# 5. OVERVIEW OF THE SERVICE TERRITORY

- Service Territory (sq. miles, # of customers, circuit miles)
- Electrical Infrastructure (# of substations, poles, microgrids)
- Environmental Settings
  - Fire Ecology (include vegetative cover)
  - Fire History
  - HFTD/HFRA
  - Climate Change
  - Topography

# 5. OVERVIEW OF THE SERVICE TERRITORY

- Community Values at Risk
  - Communities at Risk
    - Individuals at Risk of Wildfire
    - Communities at Risk per CAL FIRE
    - Access and Functional Needs Customers
    - Social Vulnerability and Exposure to Wildfire Risk
    - Sub-divisions with Limited Egress or No Secondary Egress
  - Assets at Risk
    - Buildings/Structures
    - Critical Facilities/Infrastructure

# 6. RISK METHODOLOGY & ASSESSMENT

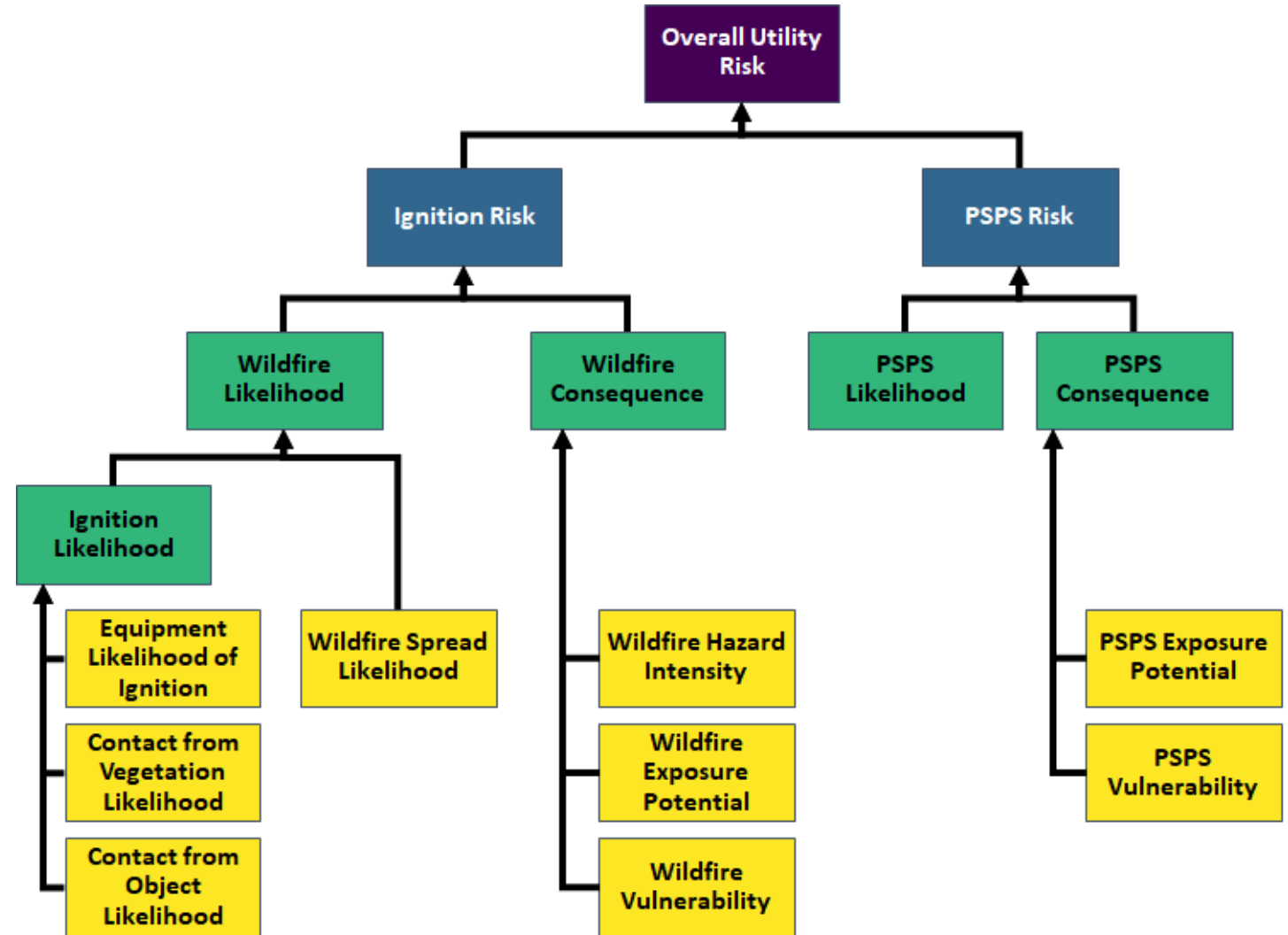
Identification of Risk Components



Calculation of Risk Components  
(Likelihood + Consequence)



Risk Scenarios



# 6. RISK METHODOLOGY & ASSESSMENT

## Risk Scenarios

- Design Basis Scenarios
  - Wind Loading (Baseline, Very High, Extreme, Worst Case)
  - Vegetation (Existing, Short-term, Long-term Fuel Load)
- Extreme - Event Scenarios
  - Longer-term scenarios with higher uncertainty (e.g., climate change impacts, population migrations, extended drought)
  - Multi-hazard scenarios (e.g., ignition during a PSPS)
  - High-consequence but low-likelihood (“Black Swan”) events (e.g., acts of terrorism, 10,000-year weather)

# 7. WILDFIRE MITIGATION STRATEGY DEVELOPMENT

- Mitigation Selection Process
- Series of Maps which include:
  - Geospatial area(s) where mitigation will be deployed
  - Level(s) at which mitigation will be deployed
  - Brief description of the scope of mitigation
- Anticipated Risk Reduction -> Each mitigation in Section 8 will have a calculated “x% risk impact”
- Interim Mitigation Strategies

# 8. WILDFIRE MITIGATIONS

1. Grid Design, Operations, and Maintenance
  - System Hardening
  - Asset Inspections
  - Grid Operations (including Protective Equipment and Device Settings)
2. Vegetation Management and Inspections
3. Situational Awareness and Forecasting
4. Emergency Preparedness
5. Community Outreach and Engagement

# 8. WILDFIRE MITIGATIONS

**Objectives** (non-quantitative) and **Targets** (quantitative) are separated by Category

- 3-year and 10-year objectives
- End of Year Targets for 2023, 2024, & 2025
- Mid-Year Targets - End of Q2 & Q3 for 2023 & 2024
  - Asset Inspections
  - Vegetation Inspections
  - Community Outreach related to PSPS



# 8. WILDFIRE MITIGATIONS

- Asset and Vegetation Inspections -> Utilities now define their own programs (not limited to detailed, patrol, other)
- Asset and Vegetation “Open Work Orders” -> Including process for eliminating a backlog of work orders
- Fire-wise Right-of-Way Initiative
- Data Governance -> [Category] Enterprise Systems
- Workforce Planning -> Now separated out into categories
- Emergency Preparedness -> Now includes a focus on government agencies coordination
- Community Outreach and Engagement -> focus on collaboration with non-governmental organizations and the public

# 9. PUBLIC SAFETY POWER SHUTOFF

- No significant changes

# CHAPTERS 10-12

## 10. Lessons Learned

- Internal monitoring and evaluation
- Collaboration with other electrical corporations
- Feedback from Energy Safety or other authoritative bodies

## 11. Corrective Action Program (How utility addresses...)

- Recurrence of risk events
- Findings from wildfire investigations
- Finding from Compliance Assurance Division (i.e., audits)
- Areas for Continued Improvement from prior year Decision

## 12. Notices of Violation and Defect

- List of open and closed notices



# Draft 2023-2025 Independent Transmission Operator Supplement

# MODIFIED REPORTING REQUIREMENTS FOR ITOS – SELECTED EXAMPLES

## 5. Overview of the Service Territory


- Fire Ecology (adjacent to assets)
- Urban, Rural, and Highly Rural Customers (no customers)
- Communities at Risk (adjacent to assets)

## 6. Risk Methodology and Assessment

- ITOs must describe their own methods to determine risk

## 9. Public Safety Power Shutoffs

- ITOs must comply with Public Utilities Code section 8386(c)(8). Beyond that, the reporting requirements associated with Section 9.1.5 of the 2023-2025 WMP Technical Guidelines do not apply to ITOs.



# Draft 2023-2025 Maturity Model and Maturity Survey

# PRIMARY CHANGES/UPDATES

- Increased scoring transparency
- Changes to Categories and Capabilities
  - Additions, modifications, and consolidations
  - Link capabilities and risk outcomes
  - Cross-category themes
- Changes to Maturity Survey
  - Changes to reflect modifications to Maturity Model
  - Improved clarity of survey questions
  - Open response field for explanation of answers and feedback
  - Survey response for each year in cycle
    - Start of 2023, 2024, 2025, 2026
    - 2020-2022 survey was limited to current year and end of cycle

# ASSESSMENT

## 1. Maturity Levels for Categories and Capabilities

- WMP Maturity
- Category Maturity
- Capability Maturity
- Sub-Capability (Scoring Philosophy) Maturity

## 2. Cross-Category Maturity Levels

- Cross-Category Theme Maturity
  - Capture key functional characteristics that are cross-cutting themes
  - Provide additional information on underlying functional features that may not readily be defined by a single capability or category
- Fundamental Risk Component
  - Allows for additional high-level performance information



Category	Capability	Capability	Capability	Capability	Capability	Capability
<b>A. Risk assessment and mitigation strategy</b>	1. Statistical weather, climate, and wildfire modeling	2. Calculation of wildfire and PSPS hazard and exposure to societal values	3. Calculation of community vulnerability to wildfire and PSPS	4. Calculation of risk and risk components	5. Risk event tracking and integration of lessons learned	6. Risk-informed wildfire mitigation strategy
<b>B. Situational awareness and forecasting</b>	7. Ignition likelihood estimation	8. Weather forecasting ability	9. Wildfire spread forecasting	10. Data collection for near-real-time conditions	11. Wildfire detection and alarm systems	12. Centralized monitoring of real-time conditions
<b>C. Grid design, inspections, and maintenance</b>	13. Asset inventory and condition database	14. Asset inspections	15. Asset maintenance and repair	16. Grid design and resiliency	17. Asset and grid personnel training and quality	
<b>D. Vegetation management and inspections</b>	18. Vegetation inventory and condition database	19. Vegetation inspections	20. Vegetation treatment and removal	21. Vegetation personnel training and quality		

Category	Capability	Capability	Capability	Capability	Capability	Capability
<b>E. Grid operations and protocols</b>	22. Protective equipment and device settings	23. Incorporation of ignition risk factors in grid control	24. PSPS operating model	25. Protocols for PSPS re-energization	26. Ignition prevention and suppression	
<b>F. Emergency preparedness</b>	27. Wildfire- and PSPS- emergency & disaster preparedness plan	28. Collaboration and coordination with public safety partners	29. Public emergency communication strategy	30. Preparedness and planning for service restoration	31. Customer support in wildfire and PSPS emergencies	32. Learning after wildfires and PSPS events
<b>G. Community outreach and engagement</b>	33. Public outreach and education awareness	34. Public engagement in electrical corporation wildfire mitigation planning process	35. Engagement with AFN and socially vulnerable populations	36. Collaboration on local wildfire mitigation planning	37. Cooperation and best practice sharing with other electrical corporations	

# CROSS-CATEGORY THEMES

- Plan Quality
- Risk Prioritization
- Data Governance
- Automation and Systemization
- Continuous Improvement

# FUNDAMENTAL RISK COMPONENTS

- Equipment ignition likelihood
- Contact from vegetation ignition likelihood
- Contact by object ignition likelihood
- Wildfire spread likelihood
- Wildfire hazard intensity
- Wildfire exposure potential
- Wildfire vulnerability
- PSPS likelihood
- PSPS exposure potential
- PSPS vulnerability

# EXAMPLE CATEGORY

## Category C: Grid Design, Inspections, and Maintenance

Capability	Maturity Level			
	2023	2024	2025	2026
Asset inventory and condition database				
Asset inspections				
Asset maintenance and repair				
Grid design and resiliency				
Asset and grid personnel training and quality				

# EXAMPLE CAPABILITY

## Capability 14: Asset Inspections

Scoring Philosophy	Maturity Level			
	2023	2024	2025	2026
Frequency				
Level of sophistication				
QA/QC				

# EXAMPLE SCORING PHILOSOPHY

## Asset Inspections, Frequency

- 11 Survey Questions
- Maturity is 0 if answer to Q1-Q2 is “no”
- Maturity is 1 if answer to Q3-Q4 is “no”
- Maturity is 2 if answer to Q5-Q9 is “no”
- Maturity is 3 if answer to Q10-Q11 is “no”
- Maturity is 4 if answer to all Questions is “yes”

# MATURITY LEVELS

Level 0: does not meet minimum expectations or regulatory requirements

Level 1: meets minimum expectations or regulatory requirements

Level 2: exceeds minimum expectations or regulatory requirements but is not consistent with industry best practices

Level 3: consistent with industry best practices

Level 4: exceeds industry best practices



# EXAMPLE CAPABILITY LEVEL

- Capability Maturity Level determined by minimum level

## Capability 14: Asset Inspections

Scoring Philosophy	Maturity Level			
	2023	2024	2025	2026
Frequency	2	3	4	4
Level of sophistication	2	3	3	4
QA/QC	0	1	1	3
<b>Capability Maturity Level</b>	<b>0</b>	<b>1</b>	<b>1</b>	<b>3</b>

# EXAMPLE CATEGORY

- Category Maturity Level determined by average level

## Category C: Grid Design, Inspections, and Maintenance

Capability	Maturity Level			
	2023	2024	2025	2026
Asset inventory and condition database	0	1	2	2
Asset inspections	0	1	1	3
Asset maintenance and repair	2	3	4	4
Grid design and resiliency	3	3	3	4
Asset and grid personnel training and quality	1	2	2	2
<b>Category Maturity Level</b>	<b>1.2</b>	<b>2</b>	<b>2.4</b>	<b>3</b>

# CROSS-CATEGORY & RISK COMPONENT

Capability 14: Asset  
Inspections


Risk Components:

- Equipment ignition  
likelihood

Scoring Philosophy: QA/QC

Cross-Category Themes:

- Plan Quality
- Data Governance

A landscape photograph showing a steep, rocky hillside covered with evergreen trees. The sky is filled with dramatic, grey and white clouds. The foreground shows the texture of the rocks and the dense foliage of the trees.

# Draft 2023-2025 Process and Evaluation Guidelines

# OVERVIEW

- Published 9/19/22
- Attachment 2 to Cover Letter
- Opening Comments due 10/26/22



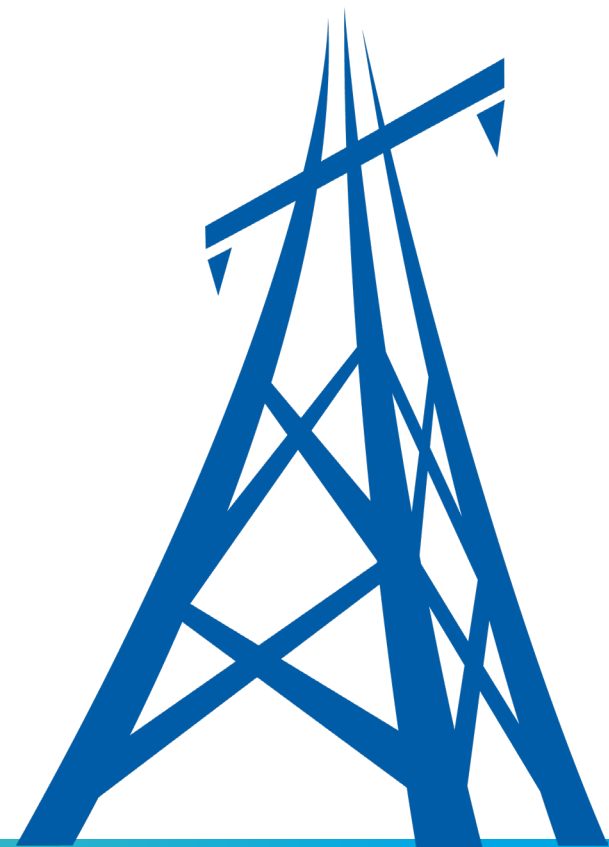
# STRUCTURE



1. Introduction
2. The Three-Year WMP Process
3. Maturity Survey
4. Energy Safety Evaluation Process
5. WMP Evaluation Criteria
6. Public Participation/Feedback on WMPs
7. Data Requests from Energy Safety
8. Data Requests from Stakeholders
9. Document Maintenance
10. Electrical Corporation WMP Submission Information
11. Schedule
12. Change Order Requests
13. WMP Updates

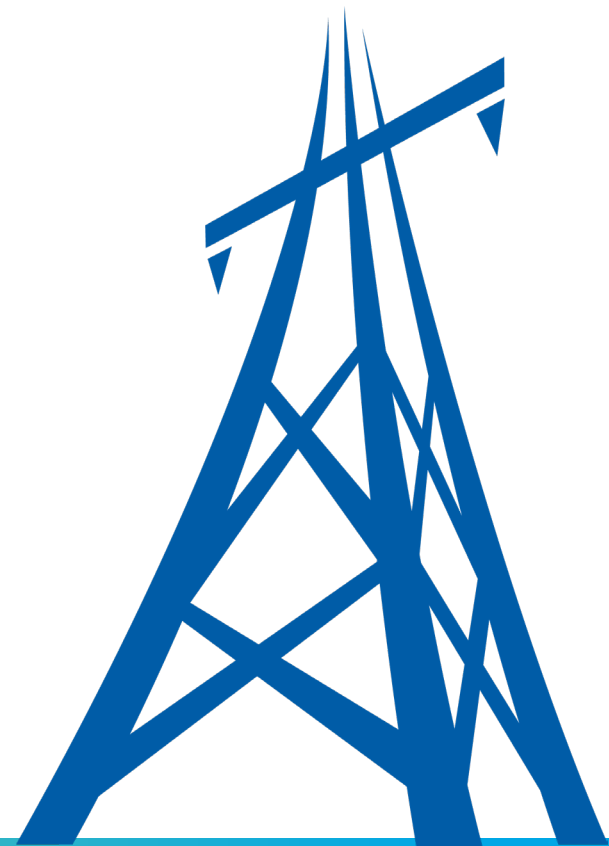
# CONTENTS

- Establishes guidelines outlining the process for disposition of WMPs
- Details public participation process
- Details submission requirements
- Process and Evaluation Guidelines will remain in effect for the 2023-2025 WMP three-year cycle
  - With updates in 2023 pertaining to WMP Updates



# NOTABLE CHANGES FROM PRIOR YEARS

- Year Ahead Process (Section 2.3)
  - In 2023, Energy Safety will evaluate and approve or deny the electrical corporations' WMPs for both 2023 and 2024
- Completeness Check/Pre-Submission (Section 4.1)
  - Completeness check occurs through pre-submission process
- Data Requests from Stakeholders (Section 8)
  - Request and receive designation as a stakeholder to send stakeholder data requests





A landscape photograph showing a steep, rocky hillside covered with evergreen trees. The sky is filled with dramatic, layered clouds. The foreground shows a dense forest of green trees, while the middle ground features a rocky slope with scattered trees. The background shows a hazy horizon line.

# Draft 2023 WMP Schedule

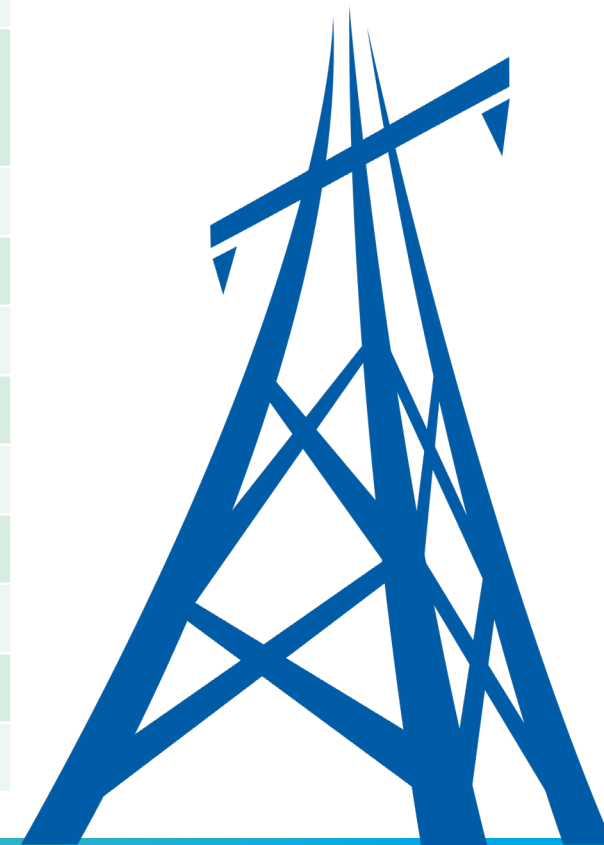
# OVERVIEW

- Published 10/14/22
- Not a Guidelines Document
  - Guidelines for Schedule included in Draft 2023 – 2025 Process and Evaluation Guidelines
- Comments due 10/26/22



# DRAFT 2023 WMP SCHEDULE (1 OF 2)

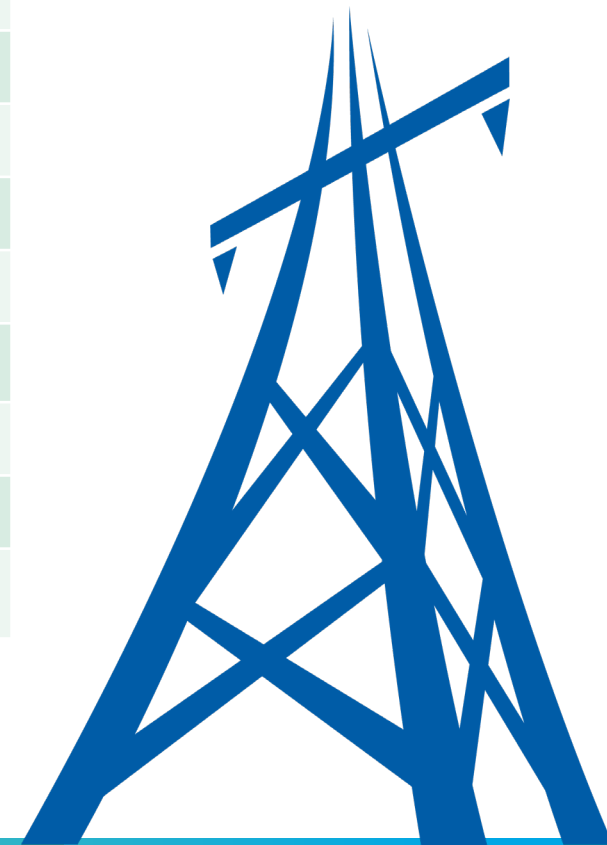
Date	Item
December 16, 2022	Energy Safety Distributes Maturity Survey to Electrical Corporations
January 30, 2023	Maturity Survey Due
February 1, 2023	Q4 2022 Quarterly Data Reports Due (pursuant to the WMP Data Guidelines)
February 13, 2023	Large IOUs WMP Pre-Submissions Due
March 6, 2023	Energy Safety Issues Completeness Check Results to Large IOUs
March 6, 2023	SMJUs/ITOs Pre-Submission Due
March 27, 2023	Energy Safety Issues Completeness Check Results to SMJUs/ITOs
March 27, 2023	Large IOUs submit WMPs
April 6, 2023	Substantive errata due for Large IOUs
April 17, 2023	SMJUs/ITOs submit WMPs
Mid-April 2023	WMP Workshop for Large IOUs (2 Days)
April 26, 2023	Non-substantive errata due for Large IOUs



# DRAFT 2023 WMP SCHEDULE (2 OF 2)

Date	Item
April 27, 2023	Substantive errata due for SMJUs/ITOs
Early May 2023	WMP Workshop for SMJUs/ITOs (1 Day)
May 26, 2023	Opening Comments Due for Large IOU WMPs
June 5, 2023	Reply Comments Due for Large IOU WMPs
June 6, 2023	Opening Comments Due for SMJU/ITO WMPs
June 16, 2023	Reply Comments Due for SMJU/ITO WMPs
End of June 2023	Revision Notices Issued for Large IOUs (where necessary)
Mid July, 2023	Draft Decisions Issued for Large IOUs without Revision Notices
End of July 2023	Revision Notices Issued for SMJUs/ITOs (where necessary)
Early August 2023	Draft Decisions Issued for SMJUs/ITOs without Revision Notices

The Draft Decision publication date for electrical corporations receiving Revision Notices will be contained in their Revision Notices

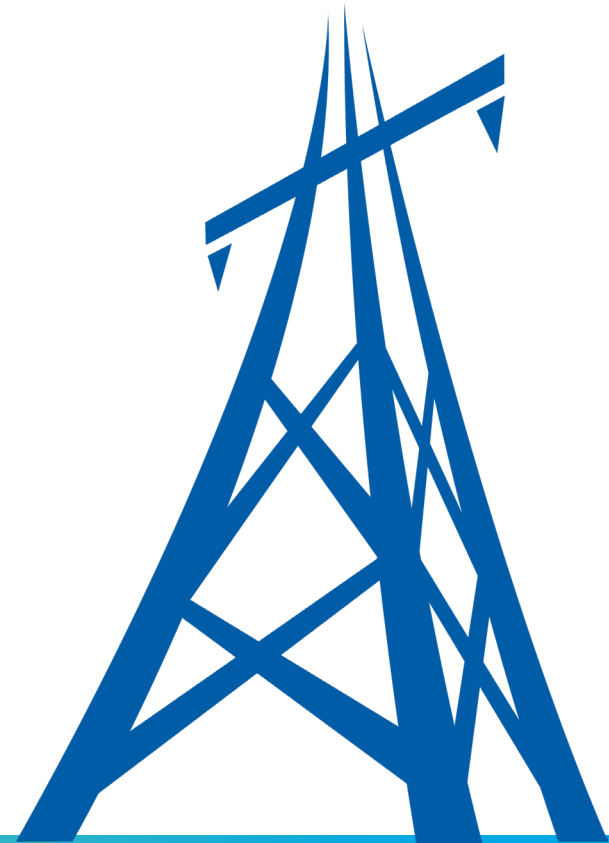




# 2023 - 2025 WMP Submittal Template

# WMP SUBMITTAL TEMPLATE

- Word Version of Final 2023 – 2025 WMP Technical Guidelines
  - With some extraneous language removed (e.g. Introduction Section)
- Available by Request
- Not subject to public comment – requirements identical to Final WMP Technical Guidelines
- Energy Safety will publish a written notice with this update





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