

## Potential Discussion Questions for Q&A Sessions

### 2021 WMP Workshop

#### Risk Assessment, Mapping & Resource Allocation Methodology

- How have the utilities risk models evolved since preparing their 2020 WMPs?
  - What specific changes have been made?
  - How will those updates result in improved ability to model ignition risk and wildfire spread?
- How are utilities using risk modeling to choose which mitigation initiatives to present in their WMPs?
  - How are these risk models used to determine appropriate initiative targets?
  - Are different risk models used to inform different types of initiatives (i.e. grid hardening vs. veg management)? If so, how is this implemented? How are the different risks aggregated to evaluate overall risk?
- How are the utilities weighing ignition, wildfire spread, and PSPS risk across assets and equipment (transformers, splices, jumpers, etc.)?
  - How is that information used to prevent asset failure or other asset-related events?
- How have the utilities progressed in including risk-spend efficiency in making mitigation initiative choices?

#### Vegetation Management: Inspection, Strategy and Pilots

- How have the utility's vegetation management practices evolved since the filing of its 2020 WMP?
- What improvements have been made to inspection practices to better target vegetation management efforts towards achieving the greatest wildfire risk reduction?
- How does the utility see the current growth in scope and scale of vegetation management activities fitting into their long-term mitigation strategy, especially given environmental consequences?
  - How has increased VM impacted biomass removal/ fuel reduction efforts?
  - How does the utility address larger woody debris (e.g., > 4in.)?
- What new technologies or practices is the utility piloting regarding VM?
- What are some of the unique VM related challenges faced by each utility? How has the utility worked to overcome those challenges?
- Are there examples of VM collaboration efforts between utilities? Are there ideas to implement joint programs/collaboration in the future?
- Digging Deeper:
  - Program (frequency/cadence, inspectors/personnel needed, record keeping, more...)
  - Inspection quality assurance, for both contractors and internal staff
  - How does the utility track individual trees year over year, ensuring inspectors and trimming crews can accurately associate inventory data with a particular tree? (e.g. GPS tree tags)

- How has the utility been identifying “at-risk” or “hazard” species and integrating into prioritization of VM work or areas for inspection?
  - How has this practice evolved?
  - Does the utility consider abiotic factors when assessing an “at-risk” or “hazard” tree? (e.g., local wind patterns, soil structure, slope, etc.)
  - How specific is vegetation identification (e.g., family, genus, species)?
- How have increased inspections and trimming/removal efforts impacted vegetation-related ignition and outage events?
  - How have these efforts impacted utilities decision-making when it comes to initiating PSPS events? Scope of PSPS? Duration?
- How has the utility prioritized areas for inspection beyond the use of the HFTDs?
- How does the utility monitor the effectiveness of increased vegetation management efforts? Which elements have proven to be effective and how is the utility deploying and prioritizing those elements?
- Does the utility consider the use retardants as part of its VM? If so, at what scale?

### **Grid Design and System Hardening; Inspections, Mitigation Choices, Emerging Technologies**

- How is the utility using risk-modeling to inform and prioritize increased inspection efforts? How do increased inspections differ from routine inspections in scope and content? How is the utility measuring the effectiveness of utilizing increased inspections in comparison to routine inspections?
- How has the utility improved its inspection practices to better target mitigation implementation? What mitigations are being implemented as a direct result of improved inspections?
- How is the utility using risk-modeling to inform and prioritize its grid design and system hardening efforts?
- What are the driving factors for deciding where to prioritize and implement undergrounding projects?
- How is system hardening being used to reduce ignition and PSPS risk? How is system hardening being used to reduce the need for extensive or increased vegetation management? How does the utility quantitatively measure risk reduction from grid design and system hardening upgrades? What reduction has occurred from 2019-present?
- What complications has the utility run into involving deployment and utilization of covered conductor?
- What has been the outcome of pilots to date? Are any pilots looking promising to become more widely deployed strategies? How is the utility implementing and prioritizing remote sensing and other system automation equipment? How and where are utilities implementing microgrid projects? How are utilities measuring the effectiveness of utilizing microgrids, and what outcomes have the utilities seen so far?

### **Public Safety Power Shutoffs (PSPS): Reducing the Scale, Scope and Frequency**

- What WMP initiatives have accounted for direct impacts on reducing PSPS scope, frequency, and duration?
  - How has the utility measured these impacts?

- How large have these impacts been?
  - Which initiatives have shown to be the most effective in reducing scope, frequency, and duration of PSPS events?
- How is the utility more granularly measuring/quantifying (circuit level, other) need for implementing a PSPS? How is the utility improving the accuracy (correctness) of PSPS prediction?
- How is the utility comparing PSPS risk to wildfire risk?
- What one or two key lessons has the utility learned from recent PSPS events that it is applying toward implementing PSPS in the future?
- How is future climate change being addressed with regard to need to implement PSPS?
- How have community impacts been incorporated into decision to implement a PSPS? How is this incorporated into decision to implement a PSPS? How are notifications and outreach evolving?
- Since 2020, how have personnel been trained and protocols developed to prepare for, learn from, and lessen future use of PSPS events? Does the PSPS initiation process include a defined decision protocol, such as a decision tree, and/or a formal decision-making process?