

CALIFORNIA PUBLIC UTILITIES COMMISSION

Office of the Safety Advocate

2018 Annual Report



January 10, 2019

In this report, the California Public Utilities Commission (CPUC) Office of the Safety Advocate (OSA), summarizes its activities in 2018 and provides a roadmap for 2019.

SB 62 (Hill, 2016), adopted unanimously by the Legislature and approved by the Governor, added California Public Utilities Code (PUC) 309.8, directing OSA to, among other things:

- Recommend improvements to public utility safety management, safety culture, and infrastructure.
- Recommend improvements to the CPUC’s own safety management and safety culture in its oversight of utilities (Advisory role to the Commission).
- Advocate as a party in proceedings to assist the Commission in its efforts to hold public utilities accountable for their safe operation.

Mission

The Office of the Safety Advocate advocates for the continuous, cost-effective improvement of the safety management and safety performance of public utilities to prevent accidents, injuries, and to save lives.

In 2018, OSA recommended, advocated, and promoted safety management system improvements over a broad spectrum of utility programs including electric, wildfire, gas pipeline, and gas storage risks.

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1 EXECUTIVE SUMMARY

OVERVIEW

As directed by SB 62, OSA advocates and recommends improvements in utility safety management, safety culture, and utility infrastructure. As utilities, technology, and best practices rapidly evolve, OSA seeks to identify both best practices and program gaps, and to recommend improvements to close those gaps. OSA reviews utility programs as elements of a safety management system in which safety culture forms the foundation. OSA efforts complement and augment the Commission's core safety work of conducting audits and inspections of utility compliance with Commission general orders and regulations. OSA works with and leverages audit and inspection data from the Commission's Safety and Enforcement Division (SED) in support of OSA's work.

OSA participates in Commission proceedings, including rate cases, to advocate for safety and to seek to identify gaps in proposed utility programs. Other intervenors in proceedings may include ratepayer advocates and municipalities, among others, focusing on several other concerns including ratepayer costs.

In some cases, OSA may advocate for increased utility investments to address gaps and to prevent incidents. As one example, OSA opposed a gas utility's rate case "Project Substitution" proposal that it may drop lower priority pipeline safety projects in favor of higher priority pipeline safety projects to ensure that the company did not spend more than revenue authorized in its rate case. OSA recommended instead that even when higher priority urgent safety work emerges, *all* identified safety projects should be implemented, and that the utility be permitted to request reimbursement in the event it exceeded the amount authorized. OSA believes that safety should be treated as a profit center, in that safety mitigation investment can save utilities and ratepayers from the enormous expense in both lives and damage of a catastrophic failure.

OSA prioritizes its work, focusing on utility safety management programs and infrastructure that staff assess as presenting the greatest risks to the public. OSA's mandate and expectations from the Legislature are extensive.

OSA will continue to advocate in support of utility safety management systems to address risks. As OSA grows, it intends to expand and deepen its efforts to identify other significant risks with the potential for catastrophic failure.

OSA will seek to increase its staffing, training, contracting ability, and access to subject matter experts, to increase its effectiveness in meeting its broad but important mandate.

2 EXAMPLES OF OSA ACTIVITIES IN 2018

In the following sections we highlight some of OSA activities related to wildfire, gas pipeline, gas storage, and other risks. A more complete list of OSA activities is provided in the body of this report.

2.1 WILDFIRE RISK

Wildfires ravaged both Northern and Southern California in 2018. Many lives were lost with multiple communities deeply impacted. At the time of this report, California's CAL FIRE agency and the CPUC are investigating these wildfires.

In response to these fires, California adopted Senate Bill (SB) 901¹ in September 2018, that among other things, directs electric utilities to submit annual Wildfire Mitigation Plans (WMPs) to the CPUC beginning in 2019. The Commission initiated a rulemaking² in October 2018 to implement SB 901 wildfire programs.

OSA is a party in this rulemaking and is advocating for safety management improvements to mitigate wildfire and other electric infrastructure risks.

UTILITY WILDFIRE RISK MITIGATION PROGRAMS

In November 2018, OSA recommended³, among other things, that the scope of the SB 901 Electric Utility Wildfire Mitigation Plans Rulemaking include a survey of best practices and workshops to gather and share information on wildfire mitigation alternatives by inviting domestic and international experts including CAL FIRE, utilities, industry, regulators, academia, and more. OSA recommended that the proceeding promote a robust *root cause analysis* of ignitions, failures, and near misses to identify the

¹ SB 901 Wildfires (2018)

https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=201720180SB901

² SB 901 Wildfire Mitigation Rulemaking R.18-10-007

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M235/K696/235696605.PDF>

³ OSA November 2018 Comments on SB 901 Electric Utility Wildfire Mitigation Plans Rulemaking

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M238/K286/238286438.PDF>

most effective corrective actions and mitigations. OSA recommended that metrics be developed on mitigation program effectiveness and consequences, including unintended consequences, of alternative mitigation measures such as De-Energization. In December 2018, the Commission initiated a separate rulemaking devoted specifically to Electric De-Energization.⁴

OSA has advocated that the wildfire mitigation plan rulemaking explicitly includes all electric infrastructure, including transmission because wildfires may be ignited by both electric distribution and transmission infrastructure.⁵

In December 2018, OSA submitted recommended changes to a proposed utility wildfire mitigation plan template.⁶ In addition to explicitly include transmission, OSA recommended that the template be revised to allow the scope of the proceeding to include, among other things:

- Ongoing workshops to share best practices
- Public safety and organizational metrics
- Effectiveness evaluation of mitigation proposals
- Explicit inclusion of utility safety culture assessments

⁴ Electric Utility De-Energization Rulemaking R.18-12-005

<http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M251/K987/251987258.PDF>

⁵ OSA December 2018 SB 901 Wildfire Mitigation Rulemaking R.18-10-007 Communication

http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/Safety_Advocate_s/R1810007%20OSA%20Notice%20of%20Ex%20Parte%20Communication,%2012-7-2018.pdf

⁶ OSA December 2018 Preliminary Comments to the Joint Utility proposed Wildfire Mitigation Plan Template

http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/Safety_Advocate_s/OSA%20Preliminary%20Comments%20to%20the%20Joint%20Utility%20proposed%20Wildfire%20Mitigation%20Plan%20Template.pdf

WILDFIRE RISK: UTILITY SAFETY MANAGEMENT SYSTEMS

After a pipeline failure in 2010, the National Transportation Safety Board (NTSB) recommended that the American Petroleum Institute (API) develop a Pipeline Safety Management Systems standard for gas pipeline operators. (API RP 1173).⁷

The electric utility industry has not developed a corresponding safety management system standard or practice for Electric Utilities.

OSA hosted a CPUC Safety En Banc hearing on Safety Management Systems before Commissioners in March 2018. OSA brought together regulators, utilities, and industry and academic experts to discuss and explore the application of safety management system standards as a tool to further improve utility safety, safety culture, and to prevent incidents.



Presenters included industry safety experts, top executives from the Commission's regulated utilities, Dr. Paul Schulman from UC Berkeley's Center for Catastrophic Risk

⁷ ANSI/API Recommended Practice 1173 Pipeline Safety Management Systems
https://www.api.org/~media/files/publications/whats%20new/1173_e1%20pa.pdf

Management, Christopher A. Hart, former chair of the National Transportation Safety Board, and a safety culture expert from Canada's National Energy Board, Dr. Claudine Bradley.

All presentations, including a link to the recording of the Safety Management System webcast⁸, are available via the Commission's OSA web page:

<http://www.cpuc.ca.gov/2018safetyenbanc/>

WILDFIRE RISK: ELECTRIC DE-ENERGIZATION

As noted above: In December 2018, the Commission initiated a separate rulemaking devoted to Electric De-Energization. Among other things, OSA recommended that metrics and data be developed to assess the consequences and unintended consequences of such mitigations. Because De-Energization can impact vulnerable populations, safety services, and municipalities, OSA is participating in this proceeding to engage with and learn from affected communities, and to develop and submit suggestions related to safety aspects of De-Energization.

OSA is aware that utility and community *communications* play a critical role in the consequences and lives lost from a wildfire regardless of whether the wildfire is ignited by utility infrastructure. OSA is exploring options that OSA or the Commission may have to improve communications.

WILDFIRE RISK: UTILITY SPECIFIC PROCEEDINGS

OSA is critically reviewing new wildfire mitigation programs that utilities submit in their rate case and other applications.

PG&E filed its 2020 General Rate Case (GRC) in December 2018, including wildfire mitigation, electric, gas, and dam safety programs. OSA will become a party to advocate

⁸ CPUC OSA Webcast En Banc on Safety Management Systems:
http://www.adminmonitor.com/ca/cpuc/en_banc/20180208/

for safety in this proceeding and seek to identify gaps and submit recommendations. OSA is attending the initial rate case workshop scheduled for January 25, 2019.

Southern California Edison (SCE) proposed wildfire mitigation programs in its September 2018 Grid Safety and Resiliency Program (GSRP) Application. In its October 2018 response⁹, OSA recommended that specific issues be addressed within the scope of this proceeding, including evaluation of alternative mitigation programs, use of metrics to evaluate program effectiveness, reliability and uncertainty of data, and evaluation of any unintended consequences from programs such as the proposed Public Safety Power Shutoff program (De-Energization).

⁹ OSA October 2018 response to SCE 2018 GSRP Application
<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M232/K379/232379761.PDF>

2.2 GAS PIPELINE RISK

OSA advocated for safety in several gas utility proceedings.



In October 2017, a gas transmission pipeline exploded in Southern California ejecting a large section of pipeline. OSA referenced this incident in its testimony¹⁰ and brief¹¹. OSA recommended that the Commission conduct an investigation to evaluate the

¹⁰ OSA A.17-10-007/ A.17-10-008 Testimony:

[http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/Safety_Advocates/A.17-10-007%20and%20A.17-10-008%20\(PUBLIC\)%20OSA%20Prepared%20Testimony%20of%20Carolina%20Contreras%20and%20Jenny%20Au_Re-dacted\(1\).pdf](http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/Safety_Advocates/A.17-10-007%20and%20A.17-10-008%20(PUBLIC)%20OSA%20Prepared%20Testimony%20of%20Carolina%20Contreras%20and%20Jenny%20Au_Re-dacted(1).pdf)

¹¹ OSA A.17-10-007/A.17-10-008 Brief:

<http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M248/K637/248637487.PDF>

effectiveness of the utility’s safety culture to help identify corrective actions to prevent future safety incidents.

OSA opposed the gas utility’s rate case “Project Substitution” proposal to drop lower priority pipeline safety projects in favor of higher priority pipeline safety projects to ensure that the company did not spend more than revenue authorized in its rate case. OSA recommended instead that even when higher priority urgent safety work emerges, all identified safety projects should be implemented, and that the utility be permitted to request reimbursement in the event it exceeded the amount authorized.

Failure of this gas transmission line contributed to concerns of adequate electric and gas supply during the winter of 2018/2019 in Southern California.¹² OSA submitted multiple recommendations for safety management system improvements.

OSA submitted a safety flag in response to pipeline failure rate information that OSA received. This safety flag was evaluated by the Safety and Enforcement Division.

2.3 GAS STORAGE RISK

In 2018, OSA advocated for safety in several gas storage proceedings. As a result, the Commission adopted safety management system conditions in approving these applications. Details are provided in sections below.

2.4 SAFETY CULTURE/SAFETY MANAGEMENT

In December 2017, OSA used the Commission’s newly created Safety Flag system to identify a potential program gap and opportunity to improve root cause analysis of pole failures in Southern California. Pole failures have been identified as a source of wildfire ignitions.

¹² California Public Utilities Commission, Aliso Canyon Risk Assessment Technical Report Summer 2018 http://cpuc.ca.gov/uploadedFiles/CPUC_Website/Content/About_Us/Organization/Divisions/News_and_Outreach_Office/Aliso%20Canyon%20Summer%202018%20Technical%20Assessment.pdf

In 2018, OSA collaborated with CPUC Electric Safety staff, sharing utility pole failure root cause analysis data. In 2019, OSA plans to review similar programs in utility rate case proceedings.

In 2018, OSA recommended increased safety performance metrics in the Safety Model Assessment Proceeding (SMAP). These recommendations included, among other things, metrics on wires down, wires down that remain energized, and detailed emergency response times.

Detailed wires down data can help utilities and Commission staff:

1. Identify and rank root causes for wires down incidents.
2. Identify and rank the most effective mitigation programs and projects
3. Evaluate the effectiveness of utility programs proposed in rate cases and other proceedings

Safety Culture

In 2015, the Commission initiated a multi-year, multi-phase safety culture investigation of PG&E. In 2017, the Commission engaged a 3rd party to assess safety culture at the utility, subsequently identifying numerous corrective actions that the Commission ordered the utility to implement. OSA participated in this proceeding, recommending that in the next phase of the proceeding in 2019, that the Commission develop metrics to evaluate the effectiveness of those corrective actions. In particular, OSA recommended that the Commission adopt organizational metrics. Organizational metrics are often leading indicator metrics that can help utilities and regulators “look under the hood” to identify organizational program gaps to subsequently correct them to prevent or reduce incidents.

Similarly recognizing the importance of safety culture to safety performance, the Legislature and Governor extended safety culture assessment to all electric utilities in adopting SB 901 in September 2018. OSA will engage in those safety culture assessments.

In December 2018, the Commission initiated an investigation into PG&E’s Pipeline Locate and Mark practices. The Commission’s Safety and Enforcement Division (SED) staff investigation report alleges that PG&E falsified locate and mark records from 2012 to 2017. OSA intends to engage in this proceeding and identify corrective actions in safety culture and organizational structure and metrics that must be addressed in this proceeding.

The impact of regulator safety (oversight) culture on utility safety performance was discussed as part of the Safety Management System En Banc hearing that OSA hosted in March 2018.¹³

3 BACKGROUND

Senate Bill 62 (Chapter 806, Stats. 2016) added Section 309.8 to the Public Utilities Code (PUC), which established the Office of the Safety Advocate (OSA) within the Commission “to advocate for the continuous, cost effective improvement of the safety management and safety performance of public utilities.”

Requiring OSA to address specific facets of safety not addressed by other Divisions of the CPUC, PUC Section 309.8 expires at the end of 2019 unless a later statute extends or deletes the expiration date, and it requires OSA to report to the Legislature annually no later than January 10 on:

- 1) actions taken by the office recommending improvements to the Commission’s safety management policies and procedures and its safety culture related to oversight of utilities;

¹³ Speaker Dr. Claudine Bradley from Canada’s National Energy Board had studied how safety culture of the regulator affects the safety performance of the regulated companies.
http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/Safety_Advocate/S2P3%20Bradley.pdf
<https://search.proquest.com/openview/382bae96746ededb6a7b6a32b893aafe/1?pq-origsite=gscholar&cbl=18750&diss=y>

- 2) actions taken to recommend improvements to public utility safety management policies and procedures and safety culture; and
- 3) proceedings in which the office participated and a brief description of the testimony it filed.

4 ACTIONS TAKEN BY OSA TO RECOMMEND IMPROVEMENTS TO PUBLIC UTILITY SAFETY MANAGEMENT POLICY AND PROCEDURES AND SAFETY CULTURE

Safety Management Systems

In several industries, regulators and operators have moved toward development and employment of a more formalized set of safety management system standards or regulations to improve safety beyond compliance-based regulation. Examples include aviation, rail, maritime, process, gas pipeline, and other industries.

On March 7th, 2018, OSA organized and hosted a 2018 CPUC safety en banc (hearing) focused on safety management systems.¹⁴ The objective of this forum was to engage with industry and academic experts, utilities, and regulators to share information and experience on the state of the art in the application of standards-based safety management systems to improve safety management and safety culture. This safety hearing helped inform attendees and participants about safety management system applications and practices, the challenges and opportunities, and provided options that OSA and the Commission can pursue to drive utility safety management policies and procedures and safety culture improvements. Additional information can be located on the March 2018 safety hearing archive web pages.¹⁵¹⁶

Throughout 2018, OSA also collaborated with industry and academic experts, and other regulators to continue building a structured standards-based framework that OSA could

¹⁴ CPUC March 2018 En Banc on Safety Management Systems, <http://www.cpuc.ca.gov/2018safetyenbanc/>

¹⁵ Agenda - CPUC March 2018 En Banc on Safety Management Systems, http://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/Safety_Advocates/CPUC%20Mar%207%202018%20Safety%20Management%20System%20En%20Banc%20Agenda%203_6_2018.pdf

¹⁶ Recording - CPUC March 2018 En Banc on Safety Management Systems, http://www.adminmonitor.com/ca/cpuc/en_banc/20180208/

then leverage to drive safety management improvements and best practices within California's regulated utilities.

As part of this ongoing work in 2018, OSA engaged with:

- CAL FIRE
- California's Division of Oil, Gas, & Geothermal Resources (DOGGR)¹⁷
- UC Berkeley's Center for Catastrophic Risk Management (CCRM)
- Contra Costa County's Health Services
- The National Aeronautics and Space Administration's (NASA) Ames Research Center – NASA operates the:
 - Federal Aviation Administration's (FAA) Aviation Safety Reporting System (ASRS)
 - Federal Railroad Administration's (FRS) Confidential Close Call Reporting System (C3RS)
- The Bureau of Safety and Environmental Enforcement (BSEE), which regulates offshore oil and gas
- Hart Solutions
 - Christopher Hart, Founder - Former Chair of the National Transportation Safety Board (NTSB)
- Canada's National Energy Board (NEB)
- Several safety management system industry experts and regulators who participated in a 2018 American Gas Association – Management Systems Workshop¹⁸

Safety Reporting Systems

In 2018, OSA also engaged with experts on the application of safety reporting systems as a tool to improve utility safety reporting practices. A safety reporting system collects information on incidents and situations that may be precursors to larger events, identifies and analyzes hazards and risks, then puts forward corrective actions to mitigate risks and prevent incidents.

¹⁷ DOGGR is a Division of California's Department of Conservation

¹⁸ American Gas Association - Management Systems Workshop, 2018,

<https://www.aga.org/events-community/events/management-systems-workshop-january-2018/>

The safety reporting system now used by the Federal Aviation Administration (FAA), which is administered by NASA, has proven to be one successful example of this approach. Safety reporting systems are also in use by the Federal Rail Administration (FRA), the international Association of Fire Chiefs (IAFC), and the Bureau of Safety and Environmental Enforcement (BSEE) – Offshore Oil and Gas. A formalized safety reporting system could improve safety for California energy utilities by preventing accidents, improving safety and safety culture, uncovering and mitigating unidentified or underestimated risks, promoting root cause analyses and corrective actions, disseminating lessons learned, and disseminating and evaluating implementation of best practices.

Safety Flag System

The Commission’s Safety Flag System empowers staff to submit concerns and suggestions, as well as to create a culture of safety vigilance, in a process by which staff can effectively flag safety concerns.¹⁹

In 2018, OSA used the Commission’s safety flag system to submit information to the Commission’s Deputy Executive Director-Safety Ombudsperson summarizing the need and importance of reliable data when utilities assess pipeline integrity. OSA also continued work on a December 2017 safety flag submission that summarized OSA’s investigation into potential safety issues regarding utility safety risks with large oil-filled transformers in high-rise buildings, root cause analysis programs that adequately identify corrective actions to effectively prevent infrastructure failures, and adequate metrics to monitor programs that affect safety.

In both safety flag submissions, OSA made recommendations to the Deputy Executive Director regarding how to proceed. In 2018, OSA also submitted additional information regarding the December 2017 submission to facilitate safety flag analyses.

¹⁹ California Public Utilities Commission Safety Action Plan and Regulatory Strategy, Implementation of the Safety Policy Statement, http://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/SafetyActionPlanRegulatoryStrategyFeb12FINAL.pdf

5 ACTIONS TAKEN BY OSA TO RECOMMEND IMPROVEMENTS TO THE COMMISSION'S SAFETY MANAGEMENT POLICY AND PROCEDURES AND ITS SAFETY CULTURE RELATED TO ITS OVERSIGHT OF UTILITIES

Safety Training for CPUC Staff

OSA has recommended and implemented a safety training program for staff to improve safety management policies and safety culture at the Commission.

In 2018, the Commission continued its recent onboarding program to train new Commission staff. New staff participated in an Introductory Series of courses, comprised of nine onboarding sessions that are offered twice per year. OSA partnered with the Commission's Deputy Executive Director-Safety Ombudsperson to develop and lead two CPUC Introductory Series; CPUC Safety Culture sessions. These two training sessions, devoted to the Commission's safety culture, were provided to 58 new staff. CPUC safety culture session trainings are intended to address topics related to:

- What is safety Culture?
- Importance of Utility Safety
- Reporting Safety Concerns
- CPUC Safety Documents
- Case Studies
- Discussion on how safety practices are observed through the work of various CPUC divisions.

Promoting Safety Awareness

OSA initiated a video message display, located in the CPUC's San Francisco office lobby in 2017, and continues to operate this video messaging to promote and provide:

- Communication of Commission events and trainings
- Awareness of behind-the-scenes work that safety staff conduct in the field
- Reinforcement of the Commission's cultural messages, values, and initiatives

- Education about the role that staff play in supporting the Commission’s mission throughout California

Working Together – OSA collaborated with CPUC staff and stakeholders in many locations during 2018.



Figure 1: CPUC Staff Locations Throughout California

Commission Safety Policies

In 2018, OSA added to and improved its existing efforts in recommending improvements to the Commission’s own safety management policies and procedures and its safety culture related to its oversight of utilities by:

- Continuing to improve OSA Safety Culture onboarding trainings
- Submitting CPUC safety flag items on potential utility program gaps
- Promoting improvements to CPUC safety management systems and safety culture
- Contributing to development of the Commission’s Strategic Plan/Strategic Directive on Safety²⁰

²⁰ CPUC’s Strategic Planning Initiative, <http://www.cpuc.ca.gov/strategicplanninginitiative/>

6 OSA ADVOCACY AND PARTICIPATION IN COMMISSION PROCEEDINGS

OSA participated in several Commission proceedings in 2018. The tables below categorize and summarize proceeding descriptions.²¹ Additional details and OSA’s activities are reported after each table.

Table 1: OSA Active in Proceedings Related to Wildfires and General Electric Utility Safety

Wildfire and General Electric Utility Safety Advocacy	
<ul style="list-style-type: none"> • R.18-12-005 • R.18-10-007 • A.18-09-002 	<ul style="list-style-type: none"> ○ Electric Utility De-Energization Rulemaking ○ Rulemaking to Implement Utility Wildfire Mitigation Plans (WMPs) Pursuant to Senate Bill 901 (2018) ○ Application of Southern California Edison (SCE) for Approval of Grid Safety and Reliability Program

- (R.18-12-005) Order Instituting Rulemaking to Examine Electric Utility De-Energization of Power Lines in Dangerous Conditions:
 - OSA is gathering information to advocate for De-Energization safety, by looking at risks, concerns, and related issues.
 - OSA continues to research industry practices (both internationally and domestically) related to De-Energization, which includes OSA’s attendance at a late 2018 Santa Rosa De-Energization Workshop that focused on the impacts of De-Energization on vulnerable populations, and attending a workshop focusing on first responders and local governments.
 - OSA will make formal recommendations to advocate for minimizing risk associated with De-Energization after reviewing information.
- (R.18-10-007) Order Instituting Rulemaking to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901 (2018):
 - OSA provided comments for the proposed Joint Utility Wildfire Mitigation Plan (WMP) Template for the Order Instituting Rulemaking (OIR) to

²¹ The Commission numbers its decisions and proceedings. Decisions begin with the letter D, and proceedings begin with either the letter A for application, C for complaint case, I for investigation, or R for rulemaking. The letters are followed by a series of numbers, which is read as the first two digits representing the year a decision or proceeding was issued or opened, the next two digits are for the month, and the last three digits are the sequential order an item was opened or filed during the month.

Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901.

- OSA participated in an Ex Parte meeting with decision makers to advocate for the inclusion of transmission tower evaluations in the new WMPs associated with the OIR to Implement Electric Utility Wildfire Mitigation Plans Pursuant to Senate Bill 901.
- OSA advocated for workshops to aid in the development of these WMPs.
- (A.18-09-002) Application of Southern California Edison Company (U338E) for Approval of Its Grid Safety and Resiliency Program:
 - OSA submitted a protest concerning the various wildfire mitigation programs selected by SCE and detailed in its Grid Safety & Resiliency Program application. OSA questions SCE’s evaluation of the effectiveness and the consequences of its mitigation proposals including the unintended consequences of its de-energization program.
 - OSA participated in and contributed to the development of the joint prehearing conference (PHC) statement for SCE’s Grid Safety & Resiliency Program application: The Administrative Law Judge assigned to the proceeding requested that the parties meet and develop a joint PHC statement to address questions such as “... whether any specific factual or legal issue in this proceeding overlaps with Rulemaking R.18-10-007”.

Table 2: OSA Active in Proceedings Related to Gas Safety

Gas Safety Advocacy	
● I.18-12-007	○ PG&E Locate and Mark Practices Investigation
● A.17-11-009	○ PG&E 2019 Gas Transmission & Storage (GT&S) Rate Case
● A.18-07-019	○ Gill Ranch Gas Storage – Transfer Control
● A.17-02-003 & D.18-05-010	○ Gill Ranch Gas Storage – Reorganization
● A.18-02-013 & D.18-10-029	○ Wild Goose & Lodi Gas Storage Asset Encumbrance

- (I.18-12-007) Order Instituting Investigation and Order to Show Cause on the Commission's Own Motion into the Operations and Practices of Pacific Gas and Electric Company (PG&E) with Respect to Locate and Mark Practices and Related Matters:

- OSA is reviewing the CPUC Safety Enforcement Division’s investigation report on PG&E locate and mark practices related to the safety of gas pipelines during excavation activities and reviewing organizational safety culture to advocate for improvements.
- (A.17-11-009) Application of PG&E Proposing Cost of Service and Rates for Gas Transmission and Storage Services for the Period 2019-2021 (U39G):
 - OSA filed testimony in the PG&E 2019 Gas Transportation and Storage General Rate Case advocating against PG&E’s proposed natural gas storage strategy (NGSS). OSA also advocated for the implementation of safety management systems at independent storage providers if the NGSS is approved.
 - OSA participated in settlement discussions, provided oral testimonies and cross-examined witnesses, and submitted opening and reply briefs in the proceeding.
- (A.18-07-019) Joint Application of Gill Ranch Storage, LLC (U914G), Northwest Natural Gas Company, NW Natural Energy, LLC, NW Natural Gas Storage, LLC, SENSEA Holdings LLC, Sciens eCORP Natural Gas Storage Holdings LLC, eCORP Storage LLC, and Sciens Natural Gas Holdings LLC for Authorization to Transfer Control of Gill Ranch Storage, LLC to SENSEA Holdings LLC Pursuant to Public Utilities Code Section 854(a):
 - OSA is in discussions with Applicants.
- (A.17-02-003 & D.18-05-010) Joint Application of Gill Ranch Storage (GRS), LLC, Northwest Natural Gas Company, NW Natural Energy, LLC, and NW Natural Gas Storage, LLC for Change of Legal Ownership and Control of Gill Ranch Storage, LLC Through a Corporate Reorganization (U914G):
 - The CPUC adopted a settlement agreement between OSA and Gill Ranch Gas Storage. The settlement incorporates a number of important Safety Management features, including a Chief Safety Accountability Officer to have authority and control over resources to ensure GRS can meet its safety obligations, a Comprehensive Safety Management System, a Safety Council to look at organizational risk, and Safety Culture Assessments.²²

²² MOTION OF THE JOINT APPLICANTS AND THE OFFICE OF THE SAFETY ADVOCATE FOR APPROVAL OF SETTLEMENT AGREEMENT, <http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M211/K794/211794970.PDF>

- (A.18-02-013 & D.18-10-029) Joint Application of Wild Goose Storage, LLC (U911G) and Lodi Gas Storage, L.L.C. (U912G) for an Order Pursuant to Sections 829 and 853 of the Public Utilities Code to Exempt from Commission Authorization the Encumbrance of the Assets of Wild Goose Storage, LLC and Lodi Gas Storage, L.L.C. and the Issuance of a Corporate Guarantee to Secure the Financing of certain Affiliates of the Utilities or in the Alternative for Authorization for the Same Relief under Sections 830 and 851:
 - OSA filed a Prehearing Conference Statement in the Wild Goose and Lodi Gas LLC Financing proceeding, identifying safety risks associated with underground storage facilities and urging the Commission to only approve the application with additional conditions to ensure funds contribute to safety.
 - OSA filed an Opening Brief and Reply Brief in the Wild Goose and Lodi Gas LLC Financing proceeding and filed comments on the proposed decision.
 - OSA’s efforts resulted in a revised decision, recommending a rulemaking for safety culture assessment for underground gas storage facilities.

Table 3: OSA Active in Proceedings Related to Gas and Electric Utility Safety

Gas and Electric Safety Advocacy	
<ul style="list-style-type: none"> • A.18-12-009 • I.17-11-003 • A.17-10-007 & A.17-10-008 • I.15-08-019 • A.15-05-002, et al • R.14-05-013 	<ul style="list-style-type: none"> ○ PG&E 2020 General Rate Case (GRC) ○ PG&E 2017 Risk Assessment Mitigation Phase (RAMP) ○ SDG&E and SoCalGas (Sempra) GRC ○ PG&E Safety Culture Investigation ○ Safety Model Assessment Proceeding (SMAP) <ul style="list-style-type: none"> ▪ SMAP Metrics Technical Working Group ○ Commission’s Safety Citation Programs Rulemaking

- (A.18-12-009) Application of PG&E for Authority, Among Other Things, to Increase Rates and Charges for Electric and Gas Service Effective on January 1, 2020 (U39M):
OSA staff is reviewing PG&E’s application. OSA will become a party to advocate for safety in this proceeding and seek to identify gaps and submit recommendations.
- (I.17-11-003) Order Instituting Investigation into the November 2017 Submission of PG&E’s Risk Assessment and Mitigation Phase (RAMP):

- OSA filed comments in the PG&E RAMP Investigation highlighting specific areas for risk management improvement.
- (A.17-10-007 & A.17-10-008) Application of San Diego Gas & Electric Company (U902M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019 (Proceedings A17-10-007 and A17-10-008 are consolidated by Ruling of November 8, 2017):
 - OSA filed testimony highlighting safety risks and recommending safety management improvements for Sempra's General Rate Case.
 - OSA conducted cross examination of SoCalGas on the failure of Line 235 at Evidentiary Hearings for Sempra's General Rate Case.
 - OSA submitted opening and reply briefs in the proceeding.
- (I.15-08-019) Order Instituting Investigation on the Commission's Own Motion to Determine Whether PG&E and PG&E Corporation's Organizational Culture and Governance Prioritize Safety:
 - OSA filed testimony highlighting safety risks and recommending safety management improvements for the PG&E Safety Culture Investigation.
 - OSA testified and conducted cross examination of PG&E on safety culture and governance at Evidentiary Hearings in the PG&E Safety Culture Investigation.
 - OSA filed a brief in the PG&E Safety Culture Investigation, proposing next steps for how the CPUC may develop and use metrics to hold the utility accountable to successfully implement multiple recommended corrective actions to improve safety culture and performance.
 - OSA filed reply comments to a Proposed Decision (PD), supporting and making recommendations for the next phase of the PG&E Safety Culture Investigation.
- (A.15-05-002, et al) Application of San Diego Gas & Electric Company (U902M) for Review of its Safety Model Assessment Proceeding (SMAP) Pursuant to Decision 14-12-025. (Pursuant to ALJ Kersten's Ruling of 6/19/2015, proceedings A.15-05-002, A.15-05-003, A.15-05-004, and A.15-05-005 are consolidated. GML):
 - OSA advocated for organizational and safety culture metrics in the SMAP Technical Working Group, as these types of metrics can be precursor indicators to safety gaps.

- OSA advocated in the SMAP Technical Working Group regarding safety related metrics, including advocating for keeping public serious injuries and fatalities (SIFs) as reportable metrics, emergency response time, and appropriate metric reporting frequency.
- (R.14-05-013) Order Instituting Rulemaking on the Commission’s Natural Gas and Electric Safety Citation Programs:
 - OSA filed comments supporting a Proposed Decision to require utilities to report self-identified potential violations that pose a significant safety threat.

Table 4: OSA Active in Proceedings Related to Distributed Energy Resources Safety

Distributed Energy Resources Safety Advocacy	
● R.17-07-007	○ Rulemaking to Consider Streamlining Interconnection of Distributed Energy Resources – Rule 21

- (R.17-07-007) Order Instituting Rulemaking to Consider Streamlining Interconnection of Distributed Energy Resources and Improvements to Rule 21:
 - In response to OSA comments at the Prehearing Conference, the Commission instituted an additional working group to consider if the Commission should establish a forum, either within this proceeding or externally, to develop interconnection safety standards to address safety and risks as the interconnection of distributed energy resources devices grows.

7 OSA TRAINING

OSA recognizes that adequate training and ongoing engagement with regulators, and industry and academic experts are necessary to provide OSA’s staff knowledge to meet the safety expectations that the Legislature envisioned for OSA and to build and maintain an effective organization. During 2018, OSA staff attended a number of industry and regulator trainings, and continued to expand OSA’s staff knowledge, build additional expertise, and develop its skills.

The information below provides some of OSA’s training-related activities in 2018.

Table 5: OSA Training Items During 2018

Month	Training Item
January	<ul style="list-style-type: none"> American Gas Association – Safety Management Systems Training
April	<ul style="list-style-type: none"> Gas & Electric Safety 101 Training
May	<ul style="list-style-type: none"> Expert Witness Training
June	<ul style="list-style-type: none"> Utilities Disaster Preparedness & Emergency Response Workshop
July	<ul style="list-style-type: none"> Ex Parte and Bagley Keene Training Witness Training for New CPUC Staff Research Needs on Wildfire: Ensuring Grid Resilience and Public Safety Workshop Created Prioritized List of Safety Training Materials for New OSA Staff
August	<ul style="list-style-type: none"> Safety Culture Training for New CPUC Staff Natural Gas Storage Fields in California Workshop - California Council on Science and Technology
September	<ul style="list-style-type: none"> Witness Training: CPUC Process, Testimony, and Hearings
November	<ul style="list-style-type: none"> Wildfire: Assessing and Preparing for Risks under Climate Change - Energy Commission Webinar
December	<ul style="list-style-type: none"> Impacts from De-Energization Workshop

8 LONG TERM ROADMAP

OSA will continue advocating in Commission proceedings as an intervenor, committed to safety issues, as mandated by SB 62. In addition, OSA plans to explore additional opportunities to support safety improvements through utility investment, adoption, and implementation of comprehensive safety management systems. OSA also plans to continue its efforts toward improving Commission safety management and culture throughout the CPUC.

OSA's planned 2019 activities include more involvement in CPUC proceedings, and safety management and culture:

Proceedings

- Participate in R.18-10-007, the Commission's new rulemaking (in response to SB 901) establishing regulations for electrical distribution utilities to address wildfire mitigation efforts. These efforts may include conducting workshops on wildfire mitigation alternatives.
- Continue to participate in the SCE Grid Safety and Resiliency Program application (A.18-09-002), which requests \$582 million for mitigation programs to reduce the threat and destruction from wildfires.
- Intervene in PG&E's 2020 General Rate Case to advocate for safety in this proceeding and seek to identify gaps and submit recommendations.
- Participate in the next phase of the PG&E Safety Culture Order Instituting Investigation (I.15-08-019), which is the remedial phase of the proceeding that seeks to identify and take steps to correct issues with PG&E's safety culture and corporate structure and governance as they relate to safety.
- Continue to participate in open proceedings that OSA was a party to during 2018.

CPUC Safety Management, Culture

- Promote proposal for a CPUC safety culture assessment.
- Support CPUC safety culture by engaging in third-party safety culture audits.
- Continue to contribute and promote development and improvement of CPUC employees' safety training.
- Facilitate a new safety hearing on the topic of general safety culture and related impacts on utility safety performance.

- Continue to investigate the operations, practices, and safety culture of utility companies to identify problems that could potentially lead to public safety incidents

A summary roadmap of OSA’s planned activities for 2019 is provided as Figure 2.

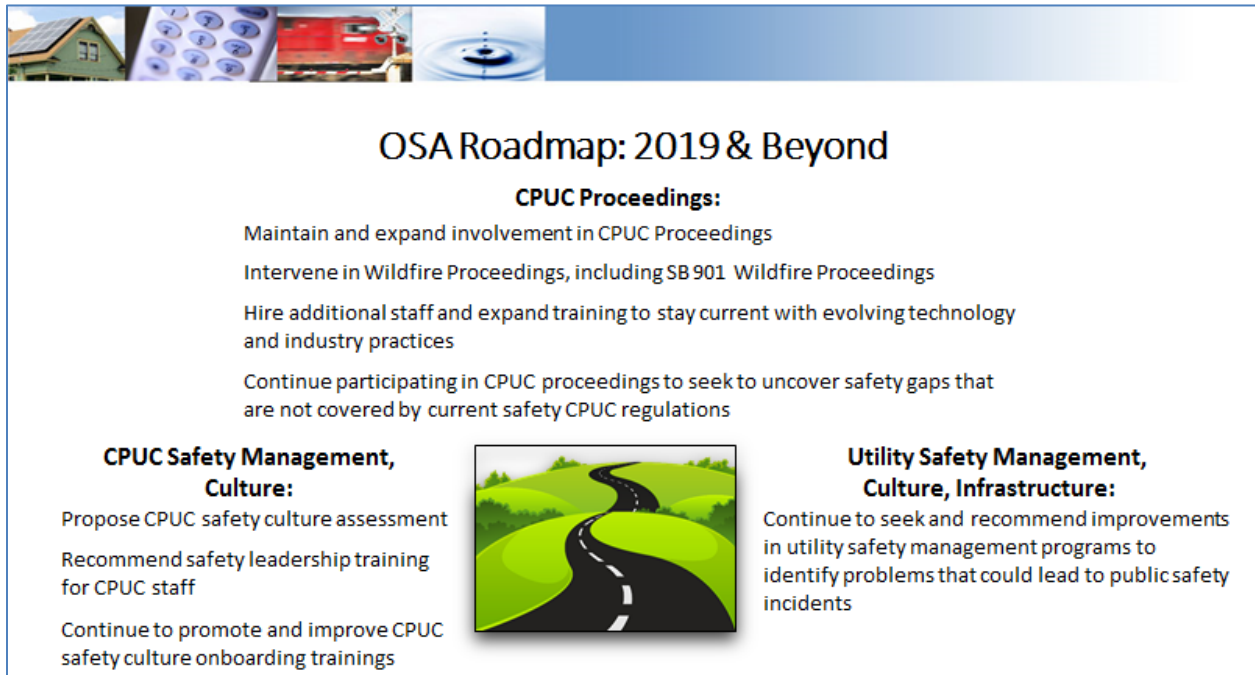


Figure 2: Summary OSA Roadmap of 2019 & Beyond