AUGUST 2019 REU EMPLOYEE NEWSLETTER

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Proactive Measures

Redding Electric Utility

REU is working closely with the Redding Police and Fire departments to minimize risks to people and property stemming from wildfires.

REU Begins Implementing Its Wildfire Mitigation Plan

REU's Wildfire Mitigation Plan was put to the test twice in June after the National Weather Service declared Red Flag Warnings for our area. On June 8th and 9th, and again June 20th through June 23rd, we took steps to proactively mitigate the risks of wildfires.

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The first Red Flag Warning was called before the Redding City Council was able to consider REU's Wildfire Mitigation Plan. The City Council approved the first phase of the plan June 18th. One of the plan's strategies discusses disabling reclosers and de-energizations on REU's electric network, as required by the law. Senate Bill 901, passed in 2018 by the California legislature, required all electric utilities to develop and implement a wildfire mitigation plan. The approved plans must be filed with the California Public Utilities Commission by January 1, 2020, and those plans must then be updated annually.

REU recently created a Wildfire Mitigation Plan website, which can be accessed <u>here</u>. You'll find Director **Dan Beans**' Facebook video from the second Red Flag Warning available there.

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EDDIN

POLICE

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Please keep us in the loop! Send your story ideas and photos to Carmen Bahr at CBahr@cityofredding.org.

Production Team: Lynn Arts, Carmen Bahr, Dan Beans, John Egan, and Damon Seely

Newsletter Team:

Ben Goehring, Electric Line Jessie McHugh, REU Power Production Jim Rich, REU Power Production Jordan Michaud, Electric Line Kevin Burke, Electric Distribution Kelly Dunbar, Financial Services Sam Marvin, Field Services Valerie Ibarra, Enterprise Services Vince Karlson, Customer Services

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Page 1: City of Redding Page 2: Matt Brooks, REU Page 3: John Egan, Glenn Newsome Page 5: John Egan Page 6: Jim Calhoun, John Egan Page 8: Friends and family of REU employees

Catch us on REU Intranet! Look for the red button marked REU Employee Newsletter.

REU Begins Implementing Its Wildfire Mitigation Plan

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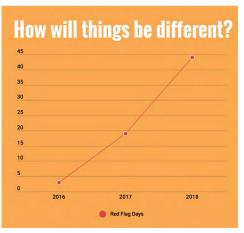
Goals of Our Plan

"Our wildfire mitigation plan has a number of strategies, but in general it seeks to minimize the sources of fire ignition and increase the resiliency of the REU electric grid," Dan commented. "By working with our customer-owners and other stakeholder groups, we think we can improve REU's operations while safeguarding our community."

Red Flag Warning periods are characterized by high temperatures, high winds, and low humidity. During those times, tree limbs are at increased risk of coming into contact with power lines, potentially creating sparks, breaking lines, and snapping utility poles — all of which could lead to fires.

Red Flag Warnings Soar

"We have seen a dramatic increase in the number of Red Flag Warnings in recent years," Dan noted. "There were less than five in 2016, but there were nearly 20 in 2017 and over 40 in 2018."



Red Flag Warnings in Northern California have increased dramatically in recent years.

One important operational step in REU's Wildfire Mitigation Plan was to turn off the reclosing function of approximately two-thirds of the circuit breakers on our electric system during Red Flag Warnings. REU has 68 12-kilovolt (kV) circuit breakers located at its 11 distribution substations.



This map, developed by the California Department of Forestry and Fire Protection (CalFire) and adopted by the California Public Utilities Commission, shows areas of "Elevated" fire risk (T2) and "Extreme" fire risk (T3) in and around Redding.

Under normal circumstances, when a problem is detected on a power line, the circuit breakers would open (or be tripped), halting the flow of electricity on that circuit. With the reclosing function enabled, the circuit breaker would attempt to automatically reclose up to three times. Under standard operating procedures, after three failed efforts to automatically reset, the circuit breaker would lock open and a call would be made to send a troubleman to inspect the problem.

Each of those reclosing attempts has the potential to generate sparks, which could create a wildfire. That's why, during the Red Flag Warnings of June 8th-9th and June 20th-23rd, we disabled the automatic reclosing function for 42 circuit breakers that serve customers in areas with high risk for wildfires.

Fortunately, there were no fires on those June Red Flag Warning days. However, customers in the affected areas experienced longer power outages than they would have if a Red Flag Warning had not been in effect.



Clint Torrence, an REU electric utility programs supervisor-Substations, stands in front of a circuit breaker on REU's distribution system.

REU Begins Implementing Its Wildfire Mitigation Plan

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Operational Changes Identified

"We learned a lot from those two Red Flag Warnings, and we identified many important changes we needed to make," Dan said in a recent interview.

"As a result, we have written a standard operating procedure that captures how we will behave during Red Flag Warnings. The Emergency Operations Program that is a component of the larger Wildfire Mitigation Plan will incorporate that procedure, along with many other elements."

One specific item that became clear during the first event is making sure we have additional troublemen available to investigate outages.

Another lesson learned was that the call center needed to be activated after business hours to handle customer calls. "We got a ton of calls from customers and other stakeholders during the Red Flag Warnings," Dan said. "Many calls ended up being directed to the power plant, where electric system operators needed to be fully concentrating on tracking outages and managing power restorations."

Dan noted that REU had issued an increased number of posts to social media platforms like Facebook and Twitter about the power outages. "We have decided to communicate more than we have in the past about these outages to keep our customers informed. This is a necessity until the completion of our Outage Management System (OMS) and associated technologies that will greatly improve customer and media access to outage information."

Previously, a localized outage affecting a small number of customers (say 25 homes) didn't warrant a social media post. Now, thanks to a new application developed by the Operational Technology group for systems operators at the power plant, all outage reports are acknowledged in a social media post.

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Troublemen like Richard Hansen can expect to become even busier during Red Flag Warnings.



The Wildfire Mitigation Plan will benefit REU and the community in several ways, including improved community fire safety and awareness, enhanced grid resiliency, heightened outage and emergency response, and reduced REU enterprise risk profile.

"The Operational Technology and System Operations teams have been really busy, and they've done a terrific job helping us communicate more effectively with our customer-owners." -- Dan Beans

REU Begins Implementing Its Wildfire Mitigation Plan

"The Operational Technology and System Operations teams have been really busy, and they've done a terrific job helping us communicate more effectively with our customer-owners," Dan said. "More frequent communications about outages and other events that affect customers helps build credibility and trust."

Coming Soon: More Firemen, Public Works Field Workers

Another part of our Wildfire Mitigation Plan is the REU Wildfire Prevention & Improved Response Program, which calls for REU to fund 22 new positions at the City:

- One Assistant Fire Marshall
- Three Public Works maintenance employees
- Six firefighters
- 12 apprentice firefighters

The new apprentice firefighters and Public Works maintenance

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employees are expected to spend most of their work hours removing ground-level brush and lowhanging materials that could feed a potential fire. The interview process for those positions is underway, and many of these new employees are expected to be on the job in the next couple of months.

For more information, see the <u>video</u> of Redding Fire Chief Cullen Kreider explaining the proactive steps the city took during the June Red Flag Warnings.

City Council Will Consider Additional Parts to the Plan

Three additional programs that make up the Wildfire Mitigation Plan have yet to come before the City Council for review. The first is technology-focused program investments, the second is an REU Emergency Operations Program, and the third is a 10-year system-hardening capital improvement program.

The Growing Importance of Line-Clearance Arborists

Another element of our plan to reduce wildfire risks is increasing the clearance between trees and our power lines. That's where REU's six line-clearance arborists (sometimes called tree trimmers) and as many as eight contracted arborists play a vital role in denying fuel to potential fires.

The California Public Utilities Commission has mandated increased clearances between trees and power lines. For 12-kV distribution lines that run through neighborhoods, the clearance between trees and power lines is being increased from 8 feet to 12 feet. For 115-kV transmission lines, clearance will be doubled, where possible, from 15 feet to 30 feet. "Our staff and contract arborists work really hard, in difficult conditions, under normal circumstances, but creating larger clearances means a great deal more effort on their part," commented Supervising Arborist **Jim Calhoun**.

"After a tree is pruned, the limbs are fed into a wood chipper to create mulch," he continued. "Each truckload of mulch weighs about 3,500 pounds. Just remember, each truckload first has to be dragged as tree limbs across a work site and then manually fed into the wood chipper by the arborists. The mulch is then dropped off at Enterprise Park, where the city can use it for landscaping."



REU Line-Clearance Arborists (from left to right) **Joe Link, Phillip Templeton**, and **John Schiff** working in a customer's back yard.

According to the U.S. Occupational Safety and Health Administration, a line-clearance arborist is one of the most physically demanding and dangerous jobs in the country. Arborists perform hard physical labor, often in extreme weather. They work above the ground, use chainsaws, and work around power lines and wood chippers all day.

The Growing Importance of Line-Clearance Arborists (Continued from page 4)

"The good news is, it looks like the City will have no shortage of landscaping mulch for the foreseeable future," Jim commented. "Increasing the clearance will make a huge difference in protecting the REU electric system and its customers." More aggressive tree-pruning procedures will also help with future snow events like the one Redding experienced this past winter, Jim noted. "During the major snowstorm back in February, something like 5,000 trees were toppled or had their branches break," he recalled.

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After trees and tree branches are mulched, the mulch is dropped off at Enterprise Park, for use in city landscaping.





REU arborists trim branches from a Grey Pine tree.

The Growing Importance of Line Clearance Arborists

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"Live Oaks suffered the most damage. They keep their leaves year-round, and are therefore more susceptible to falling over or losing limbs. And a good number of those trees and branches fell onto REU power lines."

The arborists have patrolled all overhead lines multiple times to ensure that all pruning essential to reliability has been prioritized. As a result, we know that there's a mountain of trimming and clearing work still to be done this year.

Although most customers welcome REU's tree trimmers onto their property to prune trees, some arborists report being confronted by citizens unwilling to have their trees trimmed. We understand residents' affection for their trees, but we hope they can also understand that REU must step up its tree-pruning in an effort to protect the community from wildfires and unplanned outages.



Phillip Templeton, an REU arborist, prunes a large tree on a customer's property.

Pine cones from mature Grey Pine trees can grow as large as a pineapple. Falling pine cones pose a danger to REU arborists.



Happy Work Anniversaries!

Fifteen REU employees will celebrate their work anniversaries in August. We celebrate these employees' work anniversaries and we thank them for their service!

4	U	G	2019			
SUN	MON	TUE	WED	THU	FRI	SAT
				1 Paul Sydow	2 Mark Johnson	3
4 on ossiter	5	6	7	8	9	10
11	12	13 Patrick McKenna	14 Jake Pearson Clara Quon	15	16 Matthew Waters	17
18	19 Jessica Rider Grant Dunn	20 Holly Spaner	21	22 Eva Ruiz	23	24
25 ndrew	26 Carl	27 Josh	28	29	30 Mike	31
ndrew ucklos	Carl Edginton	Josh Scott			Adams	

There's Still Time To Guess This Year's Summer Peak

Last month's newsletter, available on the REU <u>intranet</u>, showed REU's total system peak electric demand for the last 14 years and we invited employees to guess both the day and the amount of this year's, summer peak. Remember, REU is obligated to serve the City of Shasta Lake's load under a long-term contract, so the total system peak has to include that load as well as the City of Redding's. Time is running out to submit your guess! We've received some entries, but we're hoping to get more. If you'd like to participate, send your prediction for the date and the amount of this year's peak to Carmen Bahr, <u>cbahr@cityofredding.org</u>. A winner will be announced in the near future.



Shawn Avery joined REU on a full-time basis July 15th after more than 13 years in the City of Redding's Personnel Department. Earlier in his career, he worked as a community service officer at the Redding Police Department. Shawn's new title is electric program supervisor, reporting to Dan Beans. He's at the left in the photo, alongside his daughter, Hannah; wife, LeAnna; and son, Austin. As a child, Shawn dreamed of becoming a professional baseball player. We're glad he's now playing on the REU Team!

There's a new addition to the Scott family: Josh Scott, an electrical engineer in Engineering & Operations, and his wife, Madison, welcomed their first child, Ryan James Scott, into this world on June 25th. Josh weighed in at 7 lbs., 9 oz., and measured 19.5 inches tall. Congratulations Josh and Madison!



Comings & Goings

Adam Whelen, formerly manager of Parks & Facilities for the City, joined REU July 8th as an electric program supervisor overseeing the implementation of customer programs in the Customer Services Division. That's him at the left, celebrating the fall harvest season with his wife, Colleen, and their three children (left to right) Adilene, Cash, and Grace.



Sam Marvin, an REU meter reader since December 2013, was recently promoted to field services technician.



The meter shop has more good news: **Bryce Speers**, an on-call meter reader since October 2017, was promoted this summer to full-time meter reader.

