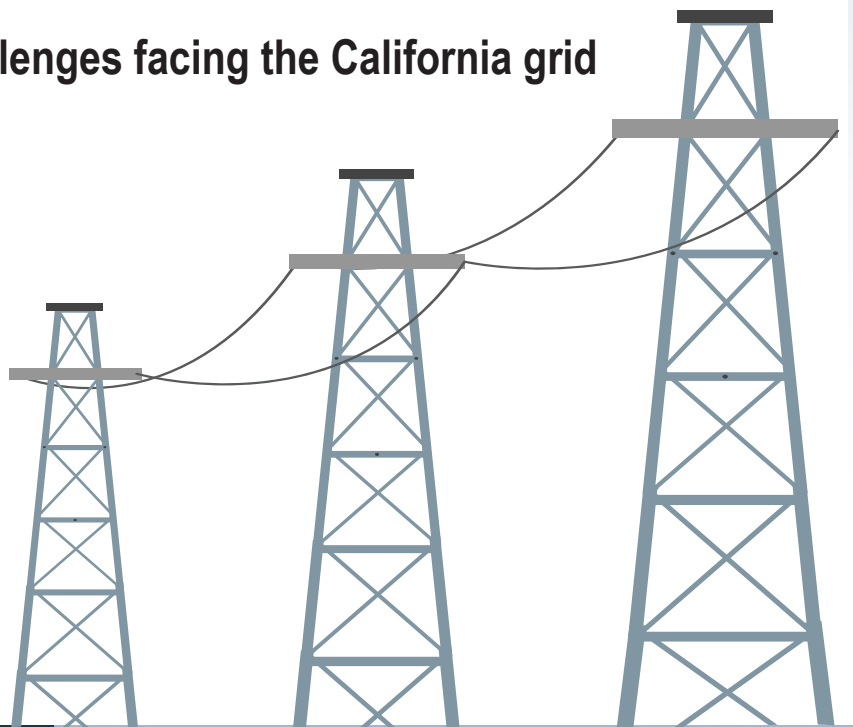




## **INCREASE YOUR MARKET SHARE ACROSS THE CALIFORNIA POWER UTILITY INDUSTRY**

### **IN THIS GUIDE YOU WILL DISCOVER...**

- 8 biggest areas of opportunity for manufacturers right now.
- Specific products that could be placed immediately.
- The exact innovation needed to strengthen the utility industry in the west coast and beyond.
- How to get material coding approvals.
- The biggest challenges facing the California grid
- **AND MORE!**





# **THE MANUFACTURERS' GUIDE TO INCREASING MARKET SHARE IN THE CALIFORNIA POWER & UTILITY INDUSTRY**

*Wildfires are the most prevalent threat power and utility companies face across the west coast with a heavy focus in California, Nevada, Oregon, and Washington.*

***With nearly 40 million people, the California market is rich with opportunity for manufacturers in the power and utility industry to place their products and grow their business in size, scale, and revenue.***

It is also a tough nut to crack without the right relationships, insights, and solutions to solve the industry's biggest problems: threat of wildfire, planned power shutoffs, and regulations that deter operational excellence.

***Pacific Power Reps (PPR) is a team of certified and experienced power and utility engineers and sales experts*** with a keen eye, insight, deep relationships, and experience helping new and established manufacturers bring innovative solutions to the aged old problem of worn equipment, fire and safety hazards, and power shutoffs.

Through career-long relationships built on trust, insight, and problem solving, Pacific Power Reps works side-by-side with manufacturers to launch new products to the market and introduce proven products to new a customer base.

PPR also interacts with regulatory agencies regarding wildfire hardening such as CalFire, California Public Utilities Commission (CPUC), Board of Forestry, among others, which keeps the entire PPR team informed of regulatory policy changes that affect manufacturers. PPR employs this information to innovate together with manufacturers to strengthen the grid, offer more advanced solutions, and solve tomorrow's power and utility problems today

## **8 KEY AREAS FOR MANUFACTURERS TO FOCUS THEIR SOLUTIONS TO BOOST SALES AND SAFETY IN THE WEST COAST MARKET:**

**1. OPERATIONS**

**2. INSPECTIONS**

**3. SYSTEM HARDENING**

**4. VEGITATION MANAGEMENT**

**5. SITUATIONAL AWARENESS**

**6. POWER SYSTEM SHUTOFF PROTOCOLS**

**7. ALTERNATIVE & SMART TECHNOLOGIES**

**8. POST-INCIDENT RECOVER, RESTORARION, & REMEDIATION**



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## **MANUFACTURERS FOCUSED ON THESE 3 WILL WIN THE WEST COAST:**

### **1. FIRE HAZARD.**

- ⚡ Utility companies are charged with hardening and restoring the grid quickly, easily, and with reduced opportunity for fault, spark, and fire threats. The next three to five years will be heavily focused on identifying and mitigating risk across an old grid with worn

### **2. THREAT OF POWER SYSTEM POWER SHUTOFF EVENTS (PSPS).**

- ⚡ In addition to losing revenue, utility companies run the risk of ignition sparks causing wildfire whenever a PSPS event occurs. Prior to energy recovery, every bit of the line needs to be inspected. The key to prevention is knowing where potential problems exist. Manufacturers with smart technology solutions that allow utility companies to scan the grid remotely, in the dark or daylight, can easily gain more Think
- ⚡ technology solutions that reduce risk across a vast, remote network; minimize outage times; minimize fire risk; and streamline logistics.
- ⚡ The faster utility companies can be back up and running following a PSPS event, the better business partner you'll become. Help them prevent shut offs and/or shorten the duration and PPR can sell your solution quickly and vastly.

### **3. OPERATIONAL PRACTICES.**

- ⚡ The key issue: How can utility companies maintain their infrastructure in a market where regulation
- ⚡ Three key areas:
  - Electrical System Grid Hardening
  - Situational Awareness
  - Operational Practices

***IF YOUR COMPANY HAS INNOVATIVE TECHNOLOGY SOLUTIONS,  
PPR HAS THE RELATIONSHIPS TO GET YOUR PRODUCTS PLACED.***

We are in this market daily. It's not just who you know, it's being in front of the right people at the right time.

***YOU SUPPLY THE SOLUTION; WE PLUG YOU INTO THE GRID.***



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*Improve upon one or any combination of the three, and you'll have an interested audience.*

*Build relationships the right way, and you'll have booming sales. Let's look deeper.*

## **A. GRID HARDENING.**

California has three main power companies: Pacific Gas & Electric (PG&E), who is constantly in the news with blame for wildfires that have caused tens of thousands of people their homes, memories, lives, and livelihoods; Southern California Edison (SCE) who has also received their share of the blame for wildfires; and San Diego Gas & Electric (SDG&E) who is also without risk and blame.

## **THE CHALLENGE: HOW DO YOU MAKE THE CALIFORNIA GRID SAFER AT A PRICE THE UTILITY COMPANIES CAN AFFORD WITHOUT GAUGING RESIDENTS AND USERS? FOUR ANSWERS:**

### **1. COVERED CONDUCTORS.**

Similar to the type of cable used underground, covered conductors would protect the California grid from foreign objects that could cause fault or spark a fire, as well as solutions that prevent electrical poles from falling, and from foreign objects such as falling trees or debris during wind storms like the Santa Ana Winds which are so prevalent in this region.

### **2. REMOTE-CONTROLLED AUTOMATIC RECLOSERS (RAR).**

Reduce fire incidence by interrupting mainline conductor faults with protective RAR devices. Program these RAR with **fast curve settings** that **reduce fault clearing time, fire ignition risks, and service interruptions** by decreasing heat and arcing, thereby lowering the possibility of ignition. Of the approximate 130 fire incidences that occur across California each year, 53%—or more than half—are caused by foreign objects hitting the grid, and a significant more are caused by animals and birds who could initiate a phase-to-phase fault. Designing **RAR with polyethylene or silicon coverings** could prevent these catastrophic fire events.

### **3. FUSING MITIGATION**

Fuses protect an overloaded circuit by de-energizing the spark, thus interrupting the flow of electricity. More than 30 percent of fire ignition events are associated with equipment or facility failure. **Fusing limits the amount of energy associated with a fault**, minimizing ignition potential. Unfused branch lines still exist, giving opportunity for manufacturers to solve this issue in new and innovative ways.

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## **4. COMPOSITE OR STEEL FIRE-RESISTANT POLES**

Fire-resistant poles should be the norm across California. Build them faster and better and you'll get the market share.

## **B. SITUATIONAL AWARENESS**

This includes weather events, system readiness, and vegetation management.

### **1. WEATHER EVENTS**

Weather events are out of human control but anticipating and preparing for them are not. By employing **intelligent technology** and weather experts, we can improve situational awareness prior to, during, and following weather events to prevent wildfires. **Solutions for manufacturers to consider and build upon include:**

#### **A. DEVELOPING METHODS TO SHARE LIGHTNING AND WEATHER DATA COLLECTED WITH LOCAL WEATHER AND FIRE TEAMS, SUCH AS:**

- **IED Cameras** placed across the territory with a focus in high-risk fire areas. This would help utility companies keep watch over the territory for spark, smoke, fire, and other information that could lead to danger and help determine whether the utility company was at fault and/or spot opportunity for innovation that could lead to reduced risk. Consider **smart cameras** that **alert fire agencies** for immediate response when ignition does occur.
- **Local Weather Monitoring Stations** with advanced modeling analytics that meteorologists could monitor for red flag warnings and data symptoms that utility companies could use to mitigate or fix issues before faults occur. Manufacturers with software and advanced capabilities in this area would be extremely welcomed in the California market.
- **Advanced Modeling Computer Hardware/Software** to identify and evaluate wildfire and safety related risks, **solve for risk before fire occurs**, and systematically achieve a higher level of safety, reliability, and resiliency. This advanced software should also be able to help utility companies **identify pain points** that might inhibit personnel from actualizing a result most efficiently.

#### **B. ANALYZING LIGHTNING MONITORING SYSTEM DATA AND ITS IMPACT ON HARDENING INFRASTRUCTURE.**

#### **C. EVALUATING NEW TECHNOLOGIES IN WEATHER MODELING TO INFORM RISK DECISION MAKING AND OPERATE OPTIMALLY FOR SAFETY AND RELIABILITY.**



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## **2. SYSTEM READINESS**

This includes pre-fire season patrol, evaluating proper vegetation and conductor clearances, post-fire season practice assessment, and assessment following a power shutoff prior to restoring power. Power shutoffs are costly to utility company revenue and quality of life for power users. They also run the threat of spark upon power restoration. A thorough patrol of the circuit is required prior to isolating the fault condition and restoring power.

- A. Consider solutions that help utility companies monitor circuits prior to power restoration, and pre- and post- weather events.
- B. Enable utility companies to access, and quickly and easily cut power to smaller, isolated portions of the grid for safety when fallen poles or other threats are discovered.
- C. Provide generators or portable community power trailers to areas where customers experience power outages due to red flag warnings and power shutoffs.

## **3. VEGETATION MANAGEMENT**

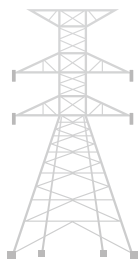
- A. Solutions are needed for quick, easy vegetation management conducted annually, including overhang removal and high-risk tree removal.
- B. Infrared inspections to identify abnormal heat sources hidden among dense vegetation

**"...OPPORTUNITIES EXIST FOR  
MANUFACTURERS TO HELP  
UTILITY COMPANIES PROVIDE  
EMERGENCY PREPAREDNESS  
AND RESPONSE PLANS..."**

## **6. OPERATIONAL PRACTICES**

Wildfires, and the damage they cause across the west coast, are influenced by many factors including a warm, dry climate, Santa Ana winds, severe droughts, and extensive urban and suburban development.

Dryness and warmth across the U.S. west coast region are expected to continue throughout this century. **Climate studies predict more severe droughts in California** with strong winds that carry palm fronds and other debris from long distances into utility lines. **Climate warming, drought, and extreme Santa Ana winds will continue to exacerbate wildfire risk conditions.**



In addition to the above solution ideas, opportunities exist for manufacturers to help utility companies provide emergency preparedness and response plans to effectively prepare for and communicate with first responders, customers, community groups, local governments, the Red Cross, FEMA, and other stakeholders before, during and after a wildfire.



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**PACIFIC POWER REPS THINK LIKE  
OUTSIDE- INSIDERS TO HELP YOU  
GROW YOUR BUSINESS IN SIZE,  
SCALE AND REVENUE.**

*To understand how best to innovate in these key areas, you need feet on the ground, personnel in the field, and utility reps that think like outside-insiders for your business.*

*We, at Pacific Power Reps (PPR), are focused problem solvers. We employ our championship-winning attitude with every job, every client, and we represent our manufacturers with class, energy, tenacity, and drive to place the best solutions for our utility customers. We place your company and product name in front of the right utility personnel at the right time, leading the sales process from beginning to end.*

***WE ARE THE STRONG DRIVING FORCE MANUFACTURERS NEED TO  
INCREASE MARKET SHARE THE WEST COAST.***

*Pacific Power Reps serves as an extension of your team with our trained, skilled engineers and sales experts focused on boosting your sales, expanding your market, and solving utility problems before they begin.*

***PACIFIC POWER REPS: WE'RE IN IT TO WIN IT!***

*To learn more, visit [PPReps.com](http://PPReps.com)*

*or call 1-888-600-4874 to schedule a consultation.*

### **ABOUT THE AUTHOR**



*Steve Lesch, P.E. is a Licensed Electrical Engineer in the State of California and holds a Power Certification focusing on Utility applications. Prior to joining the PPR team, Steve worked as a Senior Consulting Engineer for 13 years at Pacific Gas and Electric (PG&E), one of the nation's largest utility companies. His knowledge and hands-on experience with power utility applications position him to strategically provide a wide array of solutions related to Generation, Transmission, and Distribution. Steve has proven himself to be more than just a Manufacturers' Representative that closes the gaps for end-users, and moreover, is able to bridge the gap between cutting-edge industry innovations and customer needs to provide trouble-free solutions.*