Electric Distribution Engineering & Design Relevant Experience

ENTRUST
SOLUTIONS GROUP

PG&E System Hardening Project
Client: Pacific Gas and Electric Company (PG&E)

Located in Northern California's Tier 2 and Tier 3 High Fire Threat Districts, the PG&E System Hardening project focused on reducing wildfire risks and improving energy reliability. Over six years, ENTRUST partnered with PG&E to fire-harden over 200 miles of distribution circuits, spanning voltage levels from 2.4 kV to 12 kV. The project involved challenging terrain, strict safety standards, and evolving needs.

ENTRUST provided engineering and project management services to meet the project's objectives.

Key tasks included:

- Re-conductoring lines with insulated three-wire systems to reduce wildfire risks.
- Performing pole stability and structural analysis with O-Calc.
- Converting critical overhead lines to underground in high-risk areas.
- Installing SCADA devices for improved monitoring and control.

Key Achievements:

- Upgraded over 200 miles of circuits with fire-hardened designs.
- Transitioned high-risk overhead lines to underground infrastructure.
- Delivered cost-effective, scalable solutions tailored to unique terrains.
- Accommodated evolving project priorities with consistent client collaboration.

ENTRUST enhanced safety, reliability and cost efficiency for PG&E's network. The fixed-fee structure provided budget certainty, while upgraded systems reduced wildfire risks and improved service continuity for high-threat areas. ENTRUST's trusted partnership with PG&E showcases its expertise in delivering large-scale wildfire mitigation.

PG&E Fleet Electrification Project
Client: Pacific Gas and Electric Company (PG&E)

For the past three years, PG&E's Fleet Electrification program has driven the transition to cleaner transportation infrastructure across Northern California. Focused on supporting California's clean air initiatives and mandates, the program spans PG&E service centers and yards, combining distribution design and behind-the-meter solutions. ENTRUST partnered with PG&E to deliver tailored engineering and design services, overcoming logistical and operational challenges to enable smooth project execution across a large and diverse service territory.

ENTRUST holds a Master Services Agreement (MSA) with PG&E, providing full-service design and engineering support for their fleet electrification efforts. The scope of work included civil and electrical designs for the installation of light- and heavy-duty fast chargers across various service locations. ENTRUST's key responsibilities included:

- Developing to-the-meter and behind-the-meter designs for installation of charging infrastructure.
- Restriping parking lots to accommodate chargers for diverse vehicle types.
- Managing the permitting process to ensure regulatory compliance.
- Collaborating with multiple stakeholders to reconfigure yards while maintaining 24/7 access for PG&E equipment and crews.

Key Achievements:

- Delivered tailored design solutions for service centers with varying layouts and vehicle needs.
- Reconfigured yards efficiently to ensure uninterrupted access for PG&E's operations.
- Managed scope changes and schedule adjustments effectively, keeping projects on track.
- Maintained consistent communication with PG&E to align engineering efforts with program goals.

ENTRUST has been instrumental in PG&E's fleet electrification program, ensuring affordability through a fixed-fee structure that protected PG&E from price fluctuations and enabled reliable budgeting. The program's success is bolstered by ENTRUST's dedicated team of engineers and project managers, who provided continuous support and demonstrated deep expertise in meeting PG&E's specific requirements. This partnership not only achieved accurate and high-quality designs but also fostered a trusted relationship with PG&E, resulting in a successful new work stream. Beyond the client-specific accomplishments, the project has advanced California's clean air objectives by supporting utility-scale fleet electrification, showcasing ENTRUST's ability to drive sustainability and innovation in the energy sector.

Northern California Pole Replacement Project
Client: Pacific Gas and Electric Company (PG&E)

Located in Northern California, this pole replacement project focused on rectifying poorly designed pole replacement systems to increase efficiency. The project faced several challenges, including an absence of clear processes, a lack of QA/QC oversight, and low performance under prior leadership. With ENTRUST's guidance, the project underwent a complete overhaul to establish structure, accountability, and credibility, ensuring sustainable success for PG&E's infrastructure upgrades.

ENTRUST was tasked with restoring the project through an integrated engineering and management approach. Key responsibilities included:

- Replacing project leadership to improve direction and accountability.
- Establishing structured workflows and a new QA/QC framework.
- Forming a joint team approach with PG&E's QA/QC staff for quality assurance.
- Acquiring and mentoring new designers while holding them accountable to newly implemented KPIs.
- Using transparent performance tracking via Power BI dashboards to manage progress internally and externally.

Key Achievements:

- Corrected poorly designed pole replacement systems with clear workflows and processes.
- Built a knowledgeable and capable team of designers to sustain the project.
- Delivered pole replacement work at a >90% quality rate, the highest among contractors performing the same work.

ENTRUST successfully revitalized the pole replacement project, transitioning it to sustainable success. The work was performed at no charge to the client for one year, with over 20 ENTRUST resources dedicated solely to the effort. Through focused leadership and innovative solutions, ENTRUST established a true partnership and created a replicable framework for future projects.