



# 4L Professional & Technical Services Overview

July 2025

# About 4Liberty

*Solutions Based Consultancy Focused on Professional, Technical & Infrastructure Program Delivery*

*Deep Security, IT and Utility Expertise*

*Woman Owned/Operated - WBE Certified*

*Headquartered in San Diego, CA*

*Serving Clients across North America*

**2009**

Established

**1,725**

*In-Flight Projects*

**130**

*Employees*

**50%**

*Women*

**23**

*Nationalities*

# Performance-Built Solutions Consultancy Focused on Affordability



PHYSICAL  
& ELECTRONIC  
SECURITY



IT SYSTEMS /  
INFRASTRUCTURE



AUTOMATED  
DESIGN SERVICES



TRANSMISSION &  
DISTRIBUTION



GRID  
SYSTEMS

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## SHARED SERVICES

Project & Construction Management, Financial Controls, Data Science,  
App Development, Material Planning, and Project Controls

# Disciplines We Support

## Smart Grid



- Sensing and controls
- Advanced SCADA systems
- Early Fault Detection (EFD)
- ADMS / DERMS

## Transmission & Distribution (Major Projects)



- Substation rebuilds
- Maintenance and Inspection programs
- Wildfire mitigation programs

## Utility Telecommunications



- Computing/network/ data center installs and upgrades
- Fiber and microwave installations
- Inside plant, outside plant projects

## Renewables / Energy Storage / EV



- Long-duration energy storage
- ISO Interconnections
- EV planning and installation

## Physical & Electronic Security



- Risk analysis
- Complete security system installations
- Infrastructure upgrades

## IT INFRASTRUCTURE



- Commercial / government / utility
- Computing / network / data center
- Fiber / microwave / wireless
- Inside / outside plant

# Turnkey PMO: Built to Deliver Better Outcomes

- *Program, Project and Construction Management*
- *SME's – Security, IT and Construction*
- *Financial and Capital Controls*
- *Data Science, Analytics and AI*
- *Permitting, Siting and Environmental Coordination*
- *Project Controls, Process Management and Document Workflow*
- *Change Management and Communications*
- *We Innovate, Automate, & Eliminate to drive efficiencies*

# We Drive Efficiency

## ✓ **Eliminate**

- *Redundant or outdated processes*
- *Unnecessary meetings*

## ✓ **Innovate**

- *Identify better tools, systems or methodologies*
- *Utilize Data Science and AI for Streamlining*

## ✓ **Automate**

- *Repetitive and/or time intensive tasks*
- *Workflow review and approval processes*





# Project Examples



# Physical & Electronic Security

*Program management and subject matter experts protecting electric, gas, DOE, government and commercial assets:*

- *Substations, transmission, gas distribution, facility, and other asset hardening and protection*
- *Access control, intrusion detection, video/thermal surveillance, radar, and software systems*

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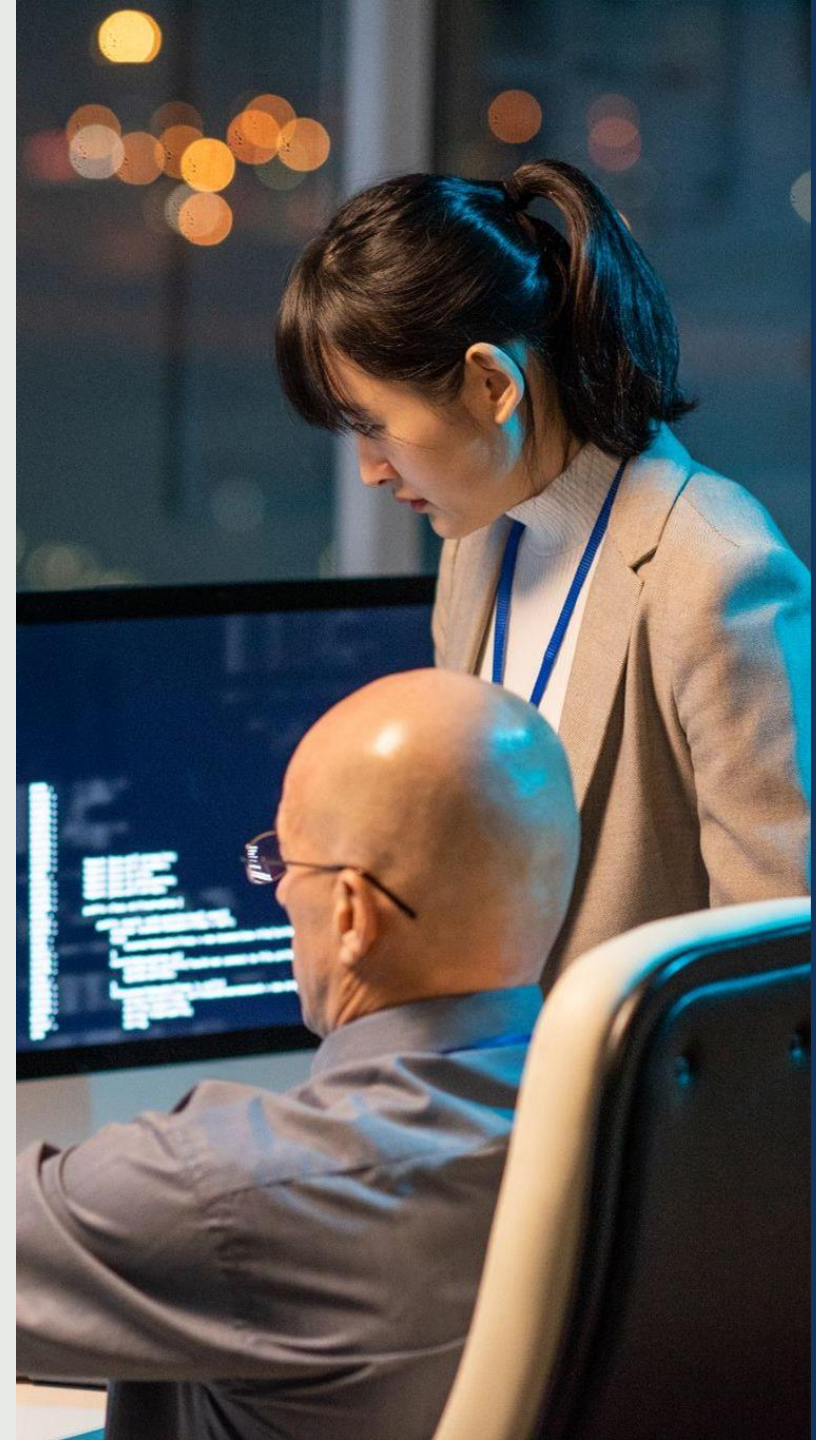
## Current Contribution

- *\$300M security upgrades*
- *20 Substation and energy storage security projects deployments under management*
- *225+ in-Flight commercial projects*

## Results

*Developed automated security design process, reducing design time by 12 weeks*

*Subject matter experts during post-construction CIP-014 audits with 100% compliance achieved*





# Advanced Protection Program (APP)

*This program is designed to address wildfire concerns in the High Fire Threat District by deploying protection devices on distribution circuits, upgrading distribution relaying and the associated breakers at substations.*

*4L provides full turnkey PMO oversight for entire program.*

2022-23

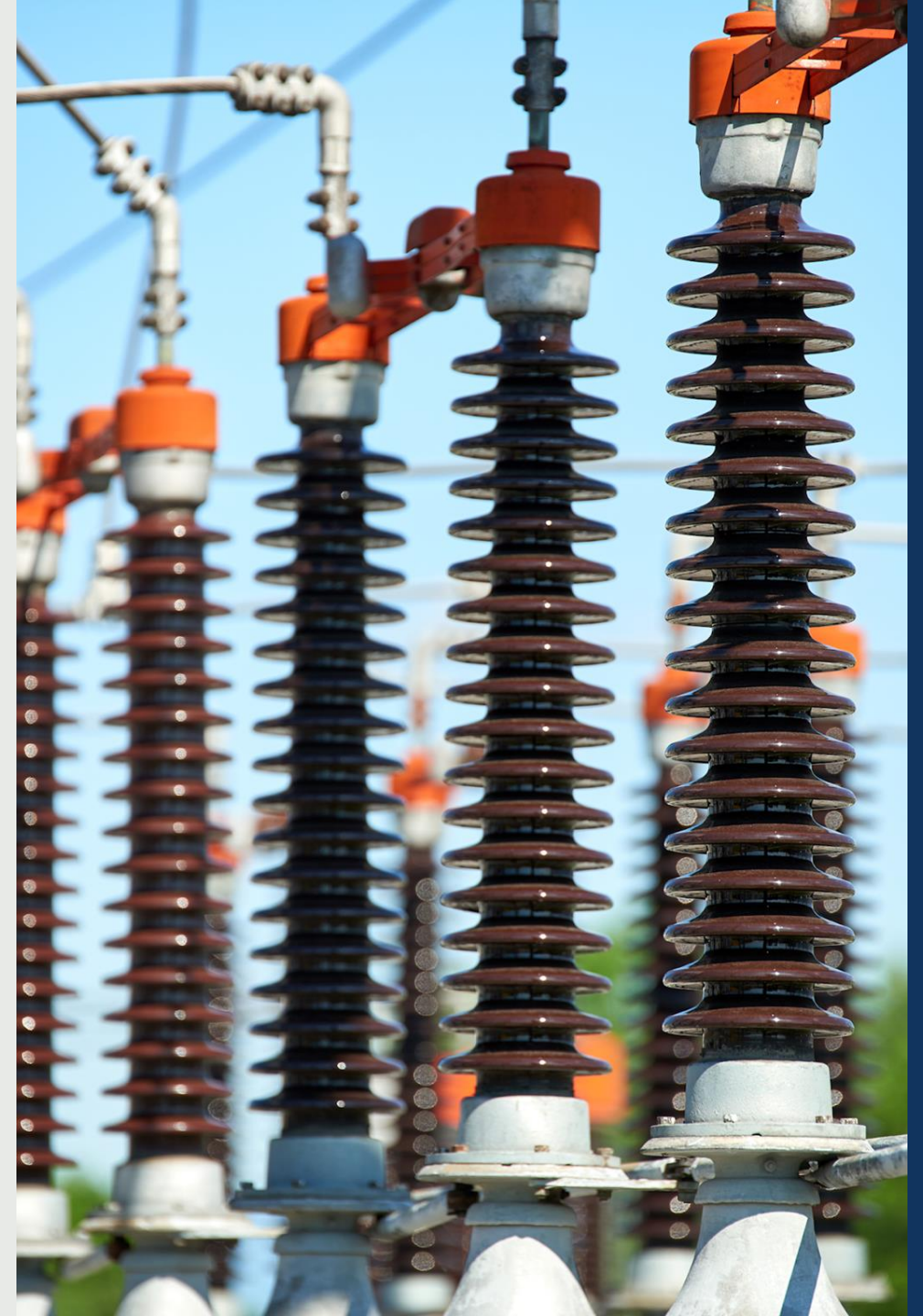
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## Goals

- *\$80M Budget (\$40M Annually)*
- *6 substation projects and associated distribution upgrades planned for completion.*

## Results

- *\$85M spent*
- *< 10% variance in two-year span*
- *0.04% Budget Variance in 2023.*
- *17% more work completed than planned.*



# Transmission Corrective Maintenance Program (CMP)

*The CMP program addresses General Order 95 and other regulations by identifying, analyzing, and replacing transmission structures and hardware that fail inspection criteria. This program has an annual budget of \$75M*

*4L provides full turnkey PMO oversight for entire program.*

2022-23

## Goals

- \$130M Budget (\$60-70M Annually)
- 342 designs issued for construction and 373 transmission pole replacements

## Results

- \$141M spent, < 8% variance in two-year span; (0.7%) Budget Variance in 2023
- 22% more designs issued for construction (419 vs 342)
- 13% more poles replaced (422 vs 373 )
- 7.5% decrease in the cost per pole when compared to previous 3yr average which resulted in a roughly \$12M savings over 2 years





# Transmission & Distribution

*Program management execution for major capital projects/programs in transmission, substations, and distribution infrastructure: Supporting WMP, Compliance, DERMs, Capacity Expansion*

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## Current Contribution

### **\$100M Annual Transmission Spend: Turnkey PMO/Construction Management**

- *At-risk transmission pole replacements; GO-95 compliance, WMP, annual transmission maintenance*
- *Transmission structure fiber-builds; ADSS, OPGW; to substations, mountain tops, energy storage, etc*

### **\$200M Substation Rebuild Projects: Turnkey PMO/Construction Management**

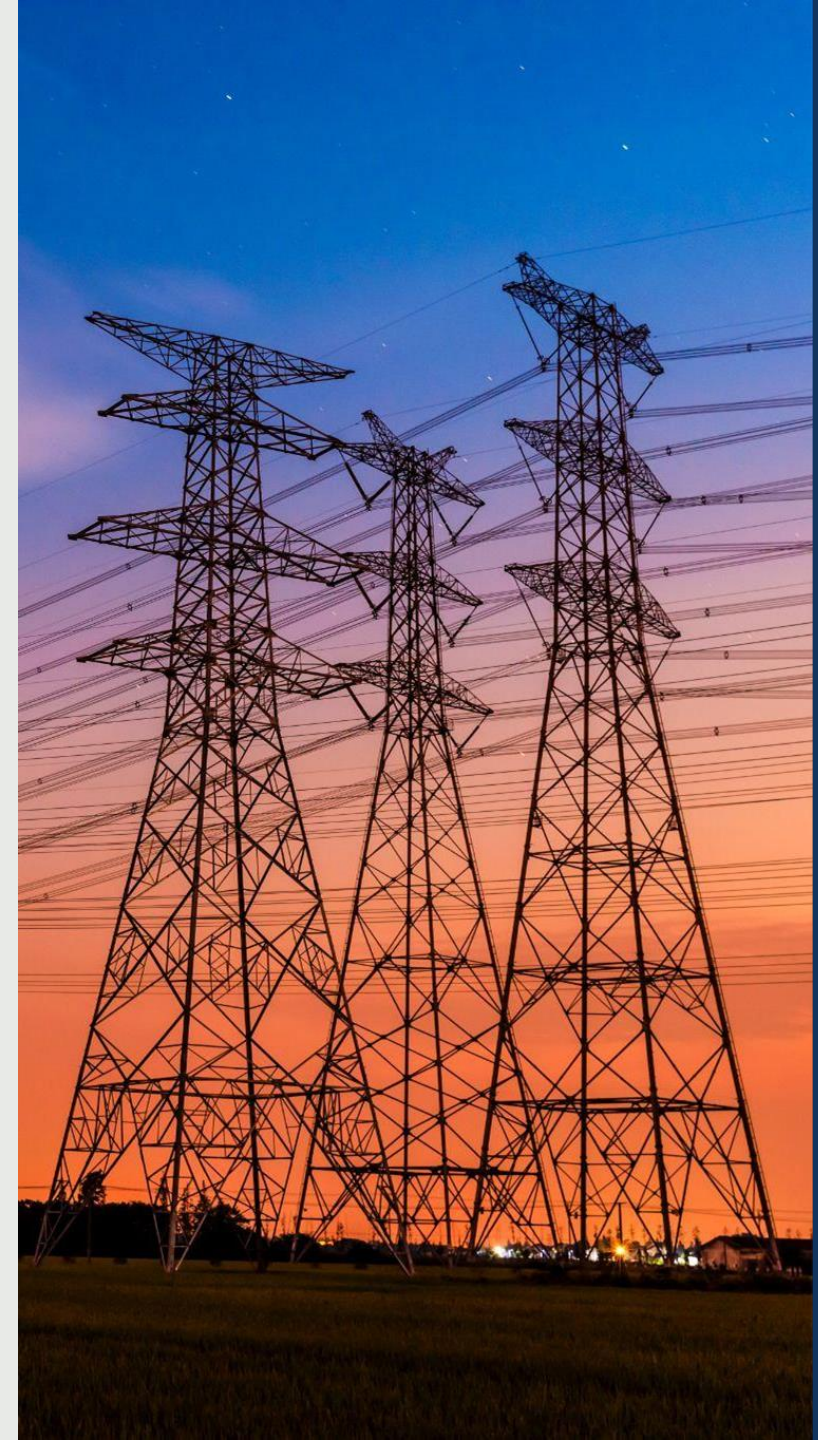
- *4 large substation rebuild projects*
- *Rebuilding energized, multi-circuit, multi-voltage, substations in environmentally sensitive areas*

## Results

*Completed 222 transmission pole replacements and 264 designs in 2022, a record for client*

*20% increase in builds and 40% increase in designs year-over-year*

*Annual variance within +/- 3%*



# Smart Grid

*Program management services delivering end-to-end smart grid projects across advanced high-speed SCADA, intelligent sensors, command and control systems, and advanced system protection automation*

## Current Contribution

**\$68M Annual system automation protection programs budget**

- *Delivering (12) simultaneous programs*
- *Distribution Early Fault Detection (EFD) deployment; PMU / Wide Area Situational Awareness deployment (grid control management), falling conductor identification and interrupt deployment, power quality device expansion and lifecycle upgrades, substation DC plant upgrades in support of protection systems, MPLS implementations (ongoing)*

## Results

*Deployed 100+ Early Fault Detection (EFD) devices on distribution circuits*

*Assisted the first US utility to implement Multi-Packet Layer Switching (MPLS) communication for sensitive system protection algorithms (TDM system replacements) – ongoing*





# Grid Communication Systems (SGCS)

*DOE co-funded program involving 400 asset locations implementing various novel wireless and known wired communication systems targeting intelligent electronic devices, protection systems, and transmission and distribution electric assets.*

*4Liberty supported SDG&E's Electric Transmission & Distribution's federal grant application and managed project deliverables. Solutions targeted advanced high-speed SCADA communications, distributed asset visibility, substation and distribution communication implementations.*

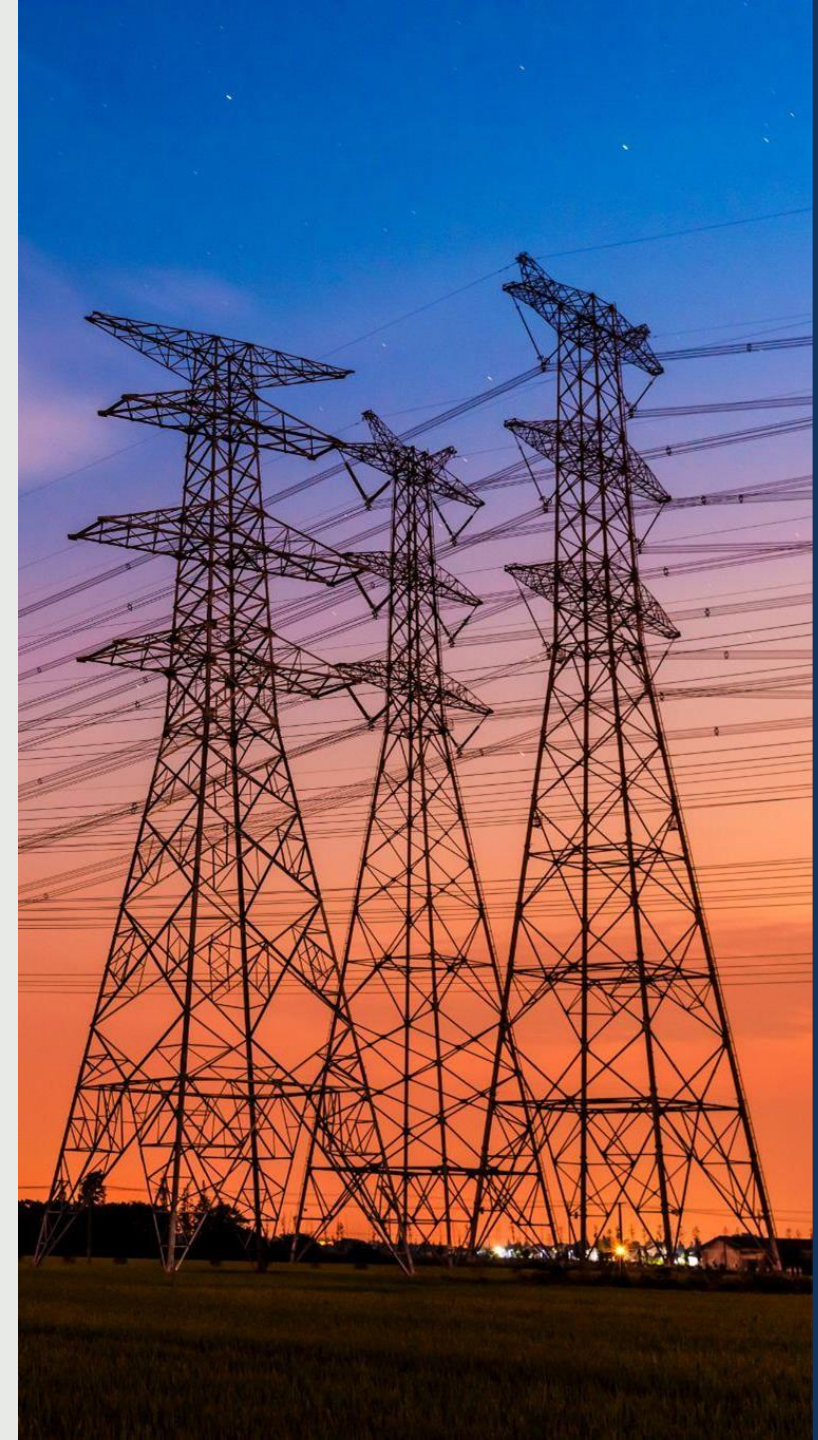
2013-2016

## Goals

- Total Budget: \$87M
- DOE Co-Fund: \$28M
- Install various communication solutions across 400+ T&D and supporting IT Infrastructure assets

## Benefits

- Improved electric service reliability
- Power control visibility
- Reduced costs from equipment failures and distribution line losses
- Reduced service costs for customers
- Reduced operating and maintenance costs





# Utility Communications

*Program management of design, engineering, procurement, and implementation of utility scale data and communication networks; substations, microwave*

## Current Contribution

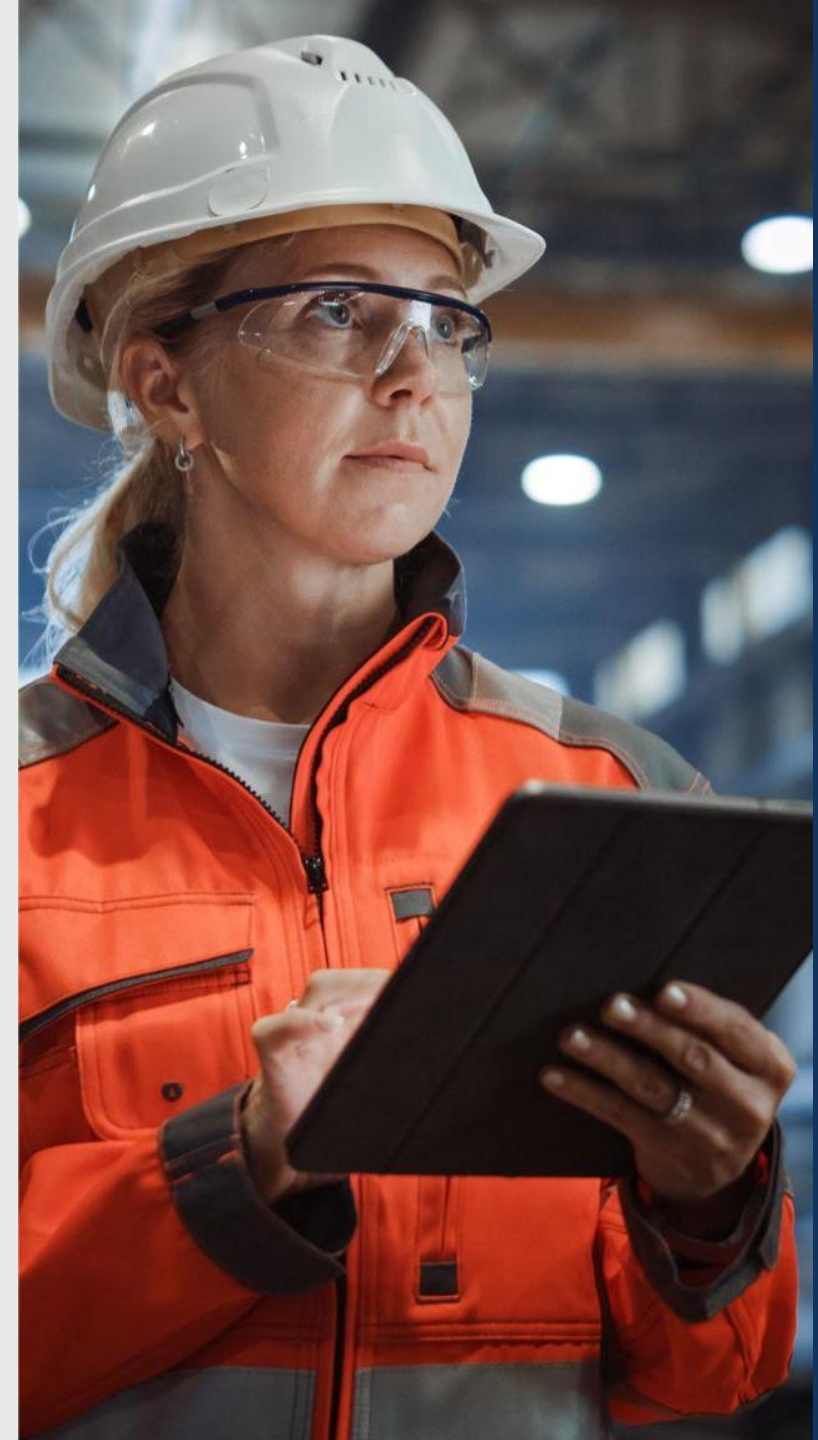
### 168 Utility level projects under management

- *Act as primary utility IT project PMO supporting \$1.4B of electric operations CapEx projects*
- *Projects include IT Infrastructure implementations supporting transmission, distribution, substations, mountain tops, SCADA, PLTE, DER wireless communication systems, microwave, lifecycle upgrades, new construction*
- *TDM to MPLS migrations supporting protection system implementations*

## Results

*Streamlined IT hardware acquisition, goods receipt, storage, and deployment; ensuring timely execution of projects*

*Supported migration from P6 to Azure DevOps/Agile Project management methodologies*



# Renewables, Energy Storage, Ev Infrastructure

*Comprehensive programs for renewables, energy storage, and electrification/EV charging infrastructure*

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## Current Contribution

**18 battery and alternate energy storage site communication implementations**

- *6 vendor variations of energy storage technology, each with unique communication requirements*
- *Deployed novel CALISO central communication module for rapid add of generation assets*
- *Provided cyber-secure remote connectivity for third party battery energy management partners*

## Results

*Instrumental in solving two-year delay on CALISO Central Comms module installation*

*Client achieved CapEx and energy storage implementation goals*



# Customer Testimonials

"From the moment I engaged with your team, I knew I was in good hands. Your dedication to understanding my needs and providing tailored solutions was unparalleled. You truly go above and beyond!"

– Emily S., Satisfied Client

"The level of attention and care your team invests in every interaction is extraordinary. It's not just about delivering a service, but about creating a meaningful experience. You've set a new standard for client-centricity."

– John P., Long-time Partner





# Customer Testimonials

**"Working with the 4L team feels like a true partnership. They don't just see us as clients, but as collaborators on a shared journey towards success. Their proactive approach and genuine concern for our goals is truly refreshing."**

*– Sarah M., Valued Customer*

**"When I know it's something 4Liberty has put together, I don't even have to double check it, I know it's going to be done right. You guys are ROCKSTARS!"**

*– Jaime W., Utility Customer*



*Let 4L Elevate Your  
Program Delivery....*



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