



Experience

We offer terminal operators full-service energy solutions to capture and sustain tangible benefits. Our professionals focus on enhancing facility life cycle performance by planning, repairing, renewing, and sustaining new and existing systems.

We are dedicated to working closely with terminal operators to solve many of the industry's most demanding challenges, including:

- Green and sustainability initiatives requiring significant decreases in energy use, carbon, and greenhouse gas emissions
- Ambitious energy cost savings goals
- Mitigating risk associated with energy assurance
- Sizeable reductions in operations and maintenance budgets and staff
- Mounting deferred maintenance costs for systems approaching the end of their life cycles
- Designing critical infrastructure systems with state-of-the-art technologies

Value

We understand the intricacies of port design and operations. Coupled with deep energy and implementation expertise, our teams offer unique services that take the guesswork out of managing turnkey projects.

These services can contribute directly to the bottom line by:

- Realizing energy reduction goals
- Increasing critical cargo handling systems' efficiency, reliability, and resiliency
- Reducing emissions associated with the movement of goods to improve air quality and reduce health risks to surrounding communities
- Reducing energy use, carbon, and greenhouse gas emissions
- Lowering operations and maintenance costs
- Improving cost avoidance through early failed system component identification

Integrated Solution

Our dedicated group of senior energy engineers and construction managers develops and implements energy savings projects from start to finish. This team features some of the most experienced and respected engineering and construction experts in the industry.

Our turnkey energy retrofits typically begin with a comprehensive, fast-paced site assessment to identify possible energy conservation opportunities. We calculate energy savings and turnkey construction costs based on a competitive bid process with qualified local trade subcontractors, and we commission and verify the actual energy savings of every project.

Turnkey implementation solutions provide terminal operators with a variety of tangible benefits, including:

- Faster design-to-completion schedules
- A single point of contact
- Results verification and monitoring
- Close management and subcontractor cost control

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Experience the savings of more energy efficient systems and components



Port Services

Our team improves energy efficiency by:

- Retrofitting exterior and interior LED controls
- Optimizing HVAC system control strategies
- Upgrading controls components and building automation systems (BAS), including energy dashboards
- Upgrading electric motors and optimizing variable speed drives
- Optimizing reefer racks and plug-ins
- Implementing automated demand response



Building Efficiency

We analyze systems as an existing building solutions provider and regularly tailor efficient and cost-effective solutions to clients' individual needs. Our team has the capacity to support facility operators as they maintain ever-changing HVAC and electrical systems by comparing current systems to operational needs.



High-Mast Lighting

High-mast lighting is the predominant source of outdoor light in ports and terminal facilities. Well-spaced poles allow for more usable ground area and fixture maintenance with minimal disruptions to normal operations.

LED Retrofits

Typical high-mast fixtures include up to twelve 1,000-watt high-pressure sodium lamps. A cost-effective LED retrofit can reduce lighting power to 400 watts or less, lowering energy consumption by more than 60 percent. LED lighting has a more than 25-year service life, significantly reducing maintenance costs. LEDs also have improved color rendering and light distribution, helping enhance onsite safety and security.

Maximizing Payback

A terminal operator with 50 high-mast area lights who seeks to improve safety and security while reducing energy consumption and maintenance costs can cut energy consumption by more than 1,800,000 kilowatt hours annually with a cost savings of \$120,000 through an LED retrofit. With one-time utility incentives of \$145,000, a project could pay for itself in less than four years.

Financing Solutions for Low Capital Situations

A variety of third-party payment plans and financing options are available for a variety of energy efficient improvements. Promotional opportunities include zero-percent interest for 12 months, or no payments and no interest for six months. This, paired with the industry's current competitive rates, provides an opportunity for ports with little capital to invest in better lighting systems.

Utility Incentives

Many utilities provide incentives for energy efficient lighting retrofits. On the West Coast alone, PG&E offers a \$200 or more incentive per fixture, and Southern California Edison (SCE) offers \$0.08 in incentives per kilowatt hour saved.