

Bringing Sustainability to Mining with Sustainable Lighting

Learn how you can prepare for future sustainability concerns with simple lighting changes

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Sustainability: An Emerging Opportunity for Mine Operators

Today's forward-thinking mine operators are ramping up investment into sustainability measures for their operations, to ensure business continuity in the coming years. Mine operators looking to navigate these uncertain times will benefit from a renewed focus on sustainability. The ones who act now will find it easier to optimize costs, improve productivity and secure capital from investors or government bodies down the line¹.

The move towards sustainable mining operations doesn't need to be sweeping, nor does it need to be done overnight. Even small but strategic steps, such as replacing metal halide fixtures with energy-efficient LEDs, can impact daily operations. This minor shift into *sustainable lighting* comes with huge reductions to maintenance and power costs – allowing you to redirect that spend towards more long-term sustainability initiatives.

In this resource, we detail how the simple shift to modern LEDs is closely aligned with the three pillars of sustainable practices – Environment, Social and Governance – and promises to bring notable benefits to your mining business. You'll get insights into:

How LED lighting can help you meet corporate sustainability

The numerous benefits sustainable lighting brings to your mining operations

How you can roll out sustainable lighting changes with the right lighting expert

¹ <https://pages.marketintelligence.spglobal.com/rs/565-BDO-100/images/Industry%20Top%20Trends%202021%20-%20Metals%20and%20Mining.pdf>





Sustainable Lighting: How Mining LEDs Are Leading the Way

The energy-saving capabilities and low maintenance requirements of mining LED fixtures are well-known, but how do they factor into your sustainability practices? When plotted against the Environmental, Social and Governance (ESG) pillars of the accepted corporate sustainability model, LED fixtures will enable specific benefits to your mine and its employees.

As an additional note, future investors and government decision-makers will increasingly evaluate your compliance with this corporate sustainability model when awarding contracts or capital investments. With that in mind, installing LEDs on your equipment or facilities is a clear sign of commitment towards securing the future of your mining operation.

How LEDs are meeting the ESG corporate sustainability requirements:



Energy-efficient LEDs significantly **slash monthly energy consumption and costs**, especially for large mining operations.



Task-specific LEDs keep work areas brightly lit, **enhancing visibility and operator safety**. Superior lighting improves operators' comfort, and prevents eye strain and fatigue.



Long-lasting LEDs can operate for over 50,000 hours and require **less maintenance, resulting in lower maintenance costs and operational downtime**.

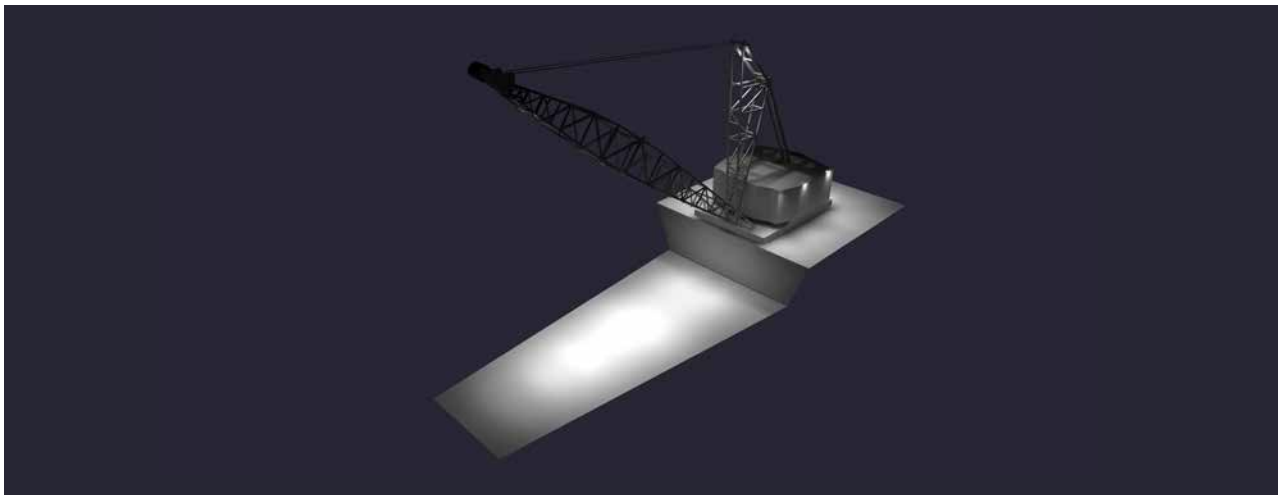
How Sustainable Lighting Benefits Your Mining Operations

The decision to adopt sustainable, energy-efficient LED fixtures confers both immediate and long-term benefits to the overall productivity, cost-efficiency and safety of your mine. These benefits can be further maximized when you work with lighting experts to determine the best fixture choice and placements around mining equipment. Here's how sustainable lighting can help your operations.



Meeting Environmental Requirements with Lower Energy

As the backbone of most surface mining operations, large mining equipment like draglines or bucket excavators contributes the lion's share of daily yield and productivity. Due to the lighting requirements of these towering behemoths, retrofitting them with modern LEDs will provide a noticeable impact on the annual, if not monthly, energy consumption and costs of your mine.



Complete retrofits provide greater lighting output and coverage for both the equipment and its surrounding environment – negating the need for additional ancillary lights. The directional nature of LED fixtures also ensures light is directed toward the work area. This leads to a reduced carbon footprint and lighting pollution for your large mining fleet, allowing you to meet the environmental goals in your sustainability strategy.

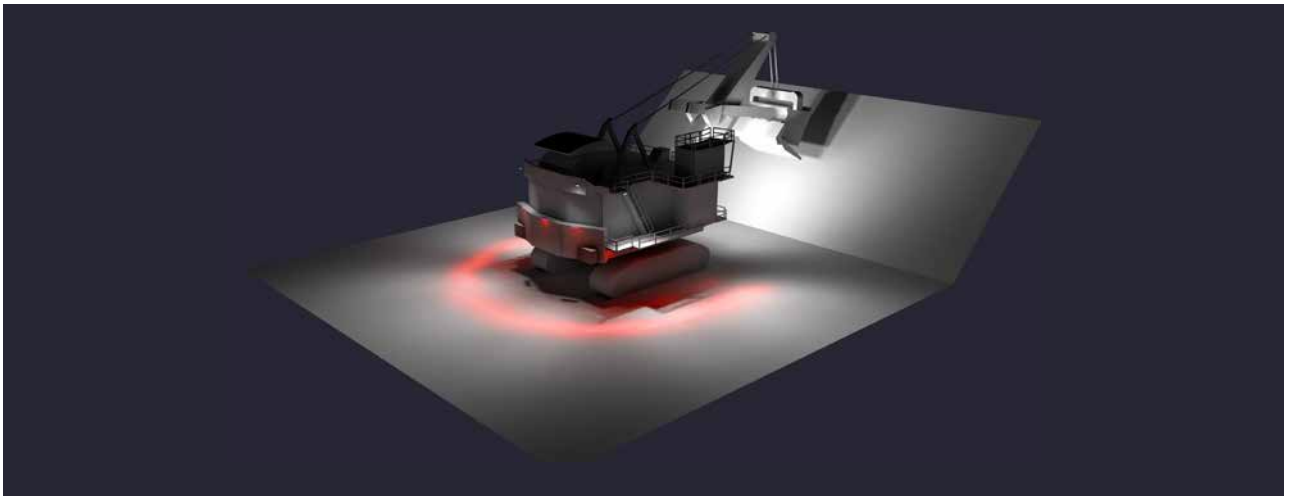


Choosing modern LED fixtures will result in upwards of 60% energy savings when equipped on larger mining equipment.



Meeting Social Requirements with Greater Workforce Safety

The rough and unpredictable terrain of mine sites makes it dangerous to navigate without superior illumination. Around large mining equipment, workers and other equipment must maintain a safe distance from the 'danger zones' to prevent unwanted collisions or accidents. In this regard, the lighting visibility provided by LED fixtures has proven critical to saving lives and avoiding disruption – something most traditional fixtures cannot provide.



That's because certain LED fixtures are designed to be task-specific, such as illuminating the surrounding danger zones of large equipment with a bright red band. Mining operations can visibly demonstrate sustainability efforts to improve operator safety with such technologies.



Phoenix Lighting's easy 1:1 retrofit matches or exceeds the lighting output of traditional metal halide fixtures, providing better visibility to operators. Our LED fixtures are equipped with precise optics that direct light where it's needed, along with various optic options to ensure lighting quality is tuned for smooth uniformity. This technology reduces glare and operator eye strain.



Meeting Governance Commitments Through Optimized Spend

Every minute of downtime is a minute not spent meeting yield and extraction targets. To ensure uninterrupted productivity and output, mining equipment must remain as long as possible on the field without compromising safety, and that requires mining lights that last.

With fewer breakable components and filament bulbs, LEDs can withstand demanding conditions that would break traditional fixtures, thus reducing maintenance or replacement costs by upwards of 80% and allowing your most productive mining equipment to remain operational for far longer periods.



\$50,000 per hour. That's how much a shovel costs an average copper mine whenever it has to be down for maintenance, or is inoperable due to insufficient light. That's simply unsustainable, and the best way to minimize this downtime is to replace traditional fixtures with durable, longer-lasting LED fixtures.



Bring Sustainability to Mine Lighting with a Proven Lighting Expert

At Phoenix Lighting, we are in touch with what the future expects of today's mining companies, and we want to help you stay a step ahead of the curve. Our lighting experts are equipped with over eight decades of knowledge on the lighting needs and challenges of surface mining operations – and are well poised to recommend a solution that allows you to meet future sustainability challenges of the mining industry.

As a global leader in durable and energy-efficient LED lighting solutions, Phoenix delivers end-to-end customer care services for your mine lighting project:



Project Assessment

Detailed evaluation of your mine site's lighting needs including a comprehensive solution with our complete range of mining lights.



Lighting Designs

Get lighting designs or simulations from our lighting experts, providing you a clear visual of your equipment's lights at work.



On-site Installation

Choose to work with our team of installers or for us to assist your preferred contractor. We'll get your lights shipped and installed with the utmost care.



Short Lead Times

Our lights are manufactured in the U.S. and with our coast-to-coast distributor network, your lights will be delivered in the shortest time possible.



Parts and Warranties

All replacements and warranty claims are handled directly by our friendly customer support team and lighting experts that can be easily contacted.

Looking to partner with us to kickstart
your journey toward sustainable lighting?

**Tell us about your project and
we'll get started.**



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