



Project

Monitoring power stations just got a whole lot more efficient thanks to VCC

Application Characteristics

Monitoring controls at an electric power generating station is a full-time job. In order to help ensure customers receive reliable electrical service in their area, control panels provide status indication for motor control, valve position and other key indicators.



And when thousands of customers depend on you, equipment downtime is not an option.

Our client, a large generation and transmission electric cooperative in Texas had a huge problem with its status indicators — the bulbs would overheat, become brittle and break. These little bulbs caused big issues, including loss of productivity, time wasted sourcing hard-to-find replacement parts and the labor associated with constantly replacing the broken bulbs.

VCC saw this as an opportunity to not only eliminate costly maintenance, but streamline the design and improve overall operating life, communication and aesthetics of the electrical monitoring equipment.

Application Requirements

Because thousands of homes and businesses rely on our client's electricity, monitoring control and valve stations must take place 24/7/365. Our client needed a reliable indicator panel solution that would:

- Deliver consistent and reliable status indication
- Reduce costly downtime due to maintenance
- Extend the operating life of the machinery
- Be clearly visible no matter the time of day or night
- Withstand harsh working environments



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Solution / Approach

Our team made a few design recommendations that would not only alleviate the client's costly maintenance issues, but extend the life and reliability of the utility generators' monitoring equipment.



PCL 22 Series

First, we replaced the incandescent bulbs, which were constantly breaking — with a long-lasting and durable PCL 22 Series LED. This 24V screw block terminal design with lock washer and hex nut is ideal for industrial applications. The 22mm is dust and watertight to IP65 for enhanced reliability and performance.



We also streamlined the control panel by switching out two separate indicators with one bi-color red and green PMI to communicate machine status. VCC retrofitted the design with a high-reliability, high-visibility LED indicator that will outshine its incandescent predecessor for years to come, and do so without any maintenance.

Results & Benefits

VCC's recommendation and product delivered a wide range of benefits, including:



- Enhanced operating life of equipment due to LEDs — at best, incandescent lamps last up to 10,000 hours, while LEDs last up to 10 times that — 100,000 hours
- Elimination of downtime to replace broken bulbs
- Increased durability with indicator designed for harsh environments
- Reduction in labor and maintenance costs
- Improved daytime visibility for enhanced safety

The client was so pleased with the updated look and performance, the electric cooperative is going to upgrade all of its motor valve and control panel indicators on a rolling schedule when they are down for maintenance. By replacing several thousand indicators with VCC's long-lasting and reliable products, the client — and its customers — will reap the rewards for years to come.

Value-added Service

Our team quickly solved our clients' design challenge, eliminating costly downtime and maintenance costs while improving the reliability of the utility generating stations.

Whether you're working on a new product, or would like to upgrade an optimize an existing design, VCC has the insight and innovation to help you achieve your design goals. Contact our team today.

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