



Customer Highlight



UC SAN DIEGO

SEL microgrid system ensures UC San Diego facilities always have power

As one of the nation's top research universities, UC San Diego requires a reliable source of electric power to sustain their marine and medical research facilities. The university decided to build their own microgrid so that even during bulk electric power system disturbances, critical facilities would have power.

Customer problem

The microgrid solution for UC San Diego had two requirements.

Resiliency

Critical loads and available generation needed to be reliably balanced when islanded from the grid, while still maintaining protection and device coordination.

Flexibility

Numerous distributed energy resources across the campus needed to be integrated into the microgrid.

Solution

SEL Engineering Services designed a solution using SEL POWERMAX® Power Management and Control System technology to quickly balance the load and available generation on the university's microgrid in the event of a disturbance. The system combines SEL intelligent electronic devices located throughout the campus, including protection, control, automation, and communications products.

Results

UC San Diego's POWERMAX system was installed in the summer of 2015. Today, their microgrid detects unstable conditions in the main grid, quickly islands itself, and sheds noncritical load so that critical areas, like Scripps Institution of Oceanography (SIO) and the UC San Diego Health System, maintain reliable operation. In addition, the campus has the flexibility to manage its power import from the grid and generate power locally.

About SEL

SEL is a 100 percent employee-owned company that specializes in creating digital products and systems that protect, control, and automate power systems around the world. This technology mitigates blackouts and improves power system reliability and safety at a reduced cost. Headquartered in Pullman, Washington, SEL has manufactured products in the United States since 1984 and serves customers worldwide.

Cybersecurity philosophy

We build layers of defense and maintain the integrity of each layer's purpose—in other words, we apply the right technology at the right layer. We believe simpler products are easier to defend and that the safety of the power system and availability of the protection and control devices come first.

Reliability

SEL products are designed and manufactured for the world's most challenging environments, exceeding all industry standards for temperature, shock, and electric stress.

Our products have a mean time between returns for repair (MTBR) of more than 250 years, based on observed field performance. This means that if you have 250 SEL products installed in your systems, you can expect to have less than one unscheduled removal from service per year for any reason, whether it's a defect or an external factor such as overvoltage, overcurrent, wildlife damage, or environmental exposure.

Warranty

SEL backs our products and commitments with a ten-year warranty, no-charge diagnostic and repair services, local support, and a variety of test procedures and certifications.

Support

SEL support teams are stationed in regional offices around the globe and staffed with application engineers who are experts in our products and in power system applications. We offer free, 24/7 emergency technical support for the life of your SEL products, even if they're outside of our ten-year warranty.

Contact us

To learn more about partnering with SEL Engineering Services, contact esinfo@selinc.com.