Customer Highlight

WASHINGTON STATE UNIVERSITY

SEL POWERMAX at Washington State University

A combination of variable load demands and critical facilities—such as student housing and research labs, respectively—means that university microgrids require a high level of adaptability and resiliency. SEL microgrid controls help prevent widespread outages and keep systems operational by delivering seamless islanding, critical asset protection, and reliable system control.

Customer Problem

On its 640-acre campus, WSU operates multiple electric power substations and a steam plant responsible for heating the university's classrooms and residences. These facilities are supported by two gas-fired engine generators, a diesel generator, and a programmable logic controller (PLC) originally installed in 2000. After more than twenty years in service, the PLC was difficult to maintain: the manufacturer no longer offered technical support, documentation was limited, and spare parts were few and far between.

Solution

SEL evaluated the existing systems and recommended a POWERMAX® Power Management and Control System—a combination of hardware and software designed to improve system reliability. POWERMAX's microgrid control library tracks the local electrical power system topology and responds to power loss by quickly shedding noncritical loads, restoring power with local generation sources, and then resynchronizing with the utility when possible.

Results

WSU partnered with SEL to update their system to the POWERMAX solution, which involved installing new panels, wiring new relays and other SEL equipment into existing panels, and drafting new documentation for the system.

With POWERMAX installed and fully operational, WSU has gained increased resiliency, as-built documentation, and 24/7 emergency technical support for the lifetime of their products.

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**.

SEL SCHWEITZER ENGINEERING LABORATORIES

SEL Engineering Services	esinfo@selinc.com	selinc.com

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