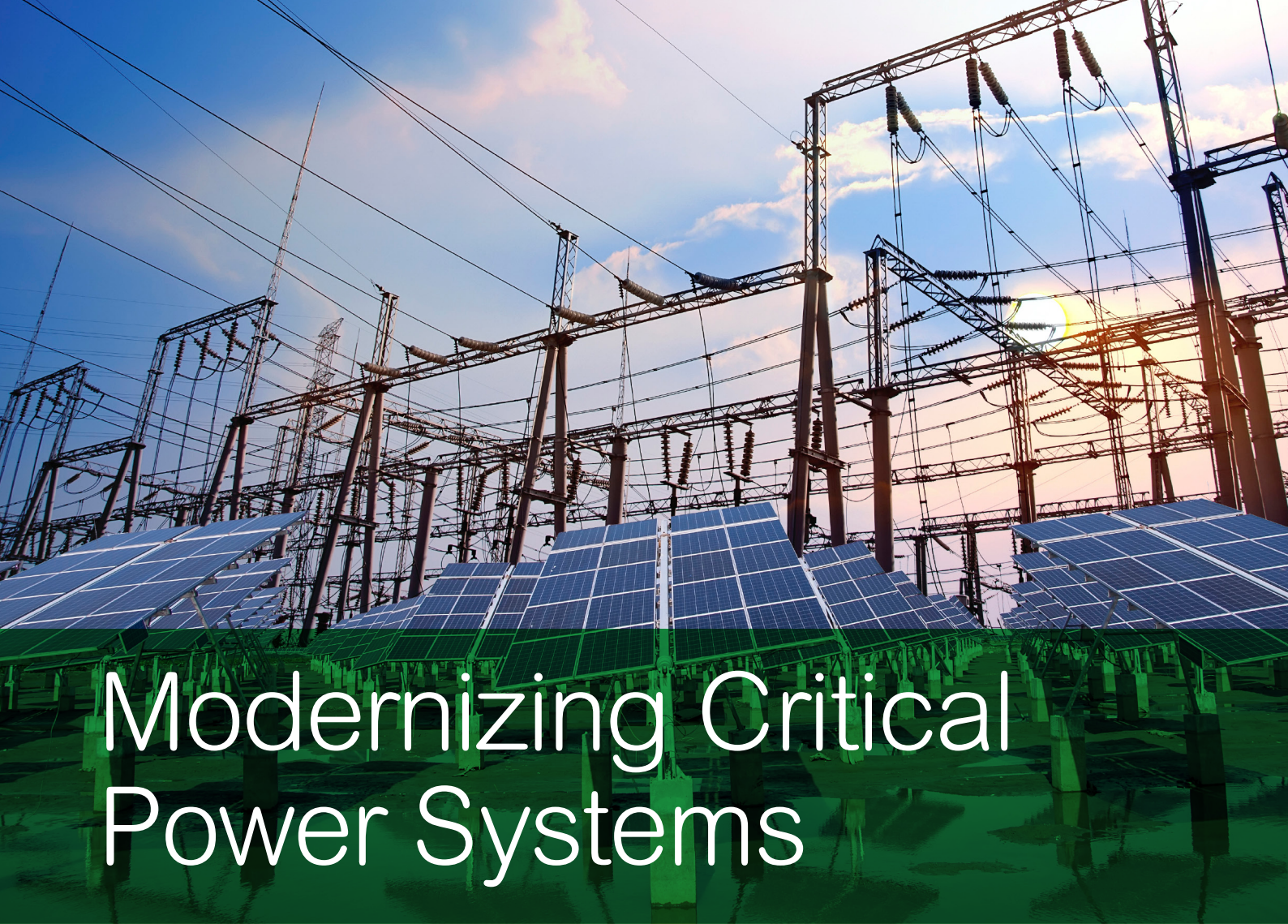




Modernizing Critical Power Systems

Schneider Electric Power Services Engineering

Protection, Control, & Automation Services:

- Critical Power Preventative Maintenance
- Risk Assessment with Prioritized Recommendations
- Modernization: Upgrade Existing Control Systems
- Retrofit Solutions: Installing Intelligent Controls in Existing Equipment
- Protection & Controls Design Consulting

Transfer systems are a crucial component of power system design; necessary to ensure critical load uptime.



schneider-electric.us/go/engineeringservices

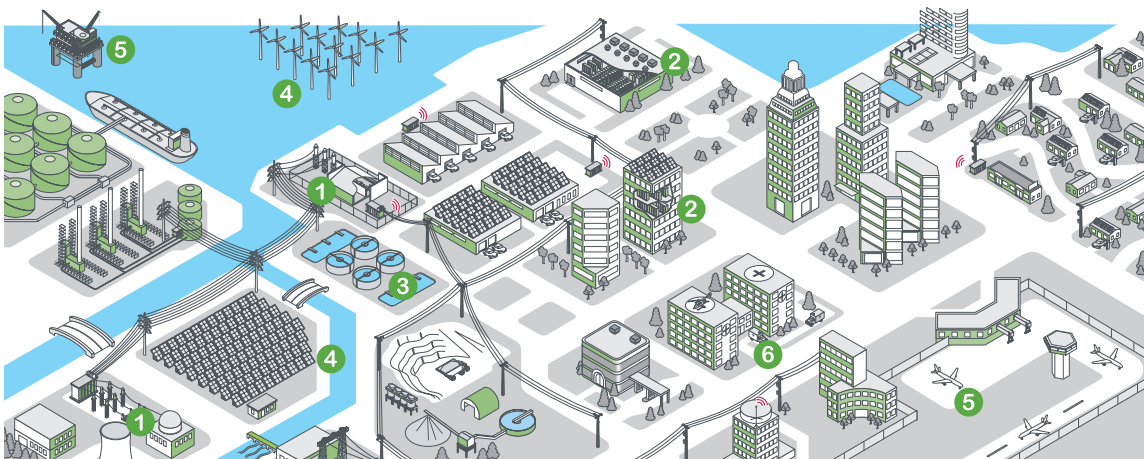
Life Is On

Schneider
Electric

Modernizing Critical Power Systems

Schneider Electric Power Services Engineering: Your Expert for Transfer Systems

The Power Services Engineering team brings together product expertise, engineering, and field services in complete solutions designed to minimize downtime, ensure power to critical loads, and improve situational awareness.



End Users that require Critical Power Applications:

- 1 Utility generation/substation protection and control using Intelligent Electronic Devices (IED), system monitoring, integrated into Supervisory Control and Data Acquisition (SCADA) applications.
- 2 Uninterrupted power to your data center via switchgear automation and generator control.
- 3 Continuous operation of your water/wastewater facility via switchgear automation and generator control with a seamless interface to your industrial control system.
- 4 Integrated control of inverter-based distributed energy resources.
- 5 Uninterrupted power delivered to critical operations of your facilities via switchgear automation and generator control with secure access to your SCADA system (Energy and Transportation).
- 6 Consulting and services for compliance with NEC Article 517 and NFPA 99 for essential healthcare power systems.

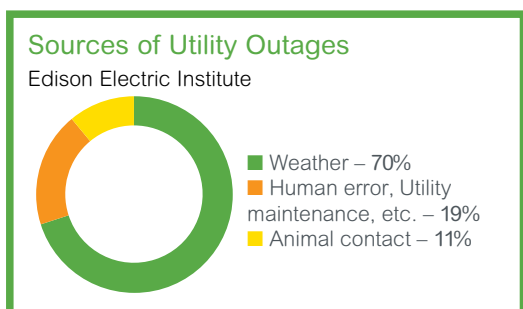
Critical Power Systems connect Controllers including PLC, Relay, & Generator Controls to Circuit Breakers, Human Interface, and Power Sources to ensure continuous operation when utility sources are interrupted.

The equipment displayed is a legacy Auto Throw Over solution.



Risks of Legacy Systems

Loss of utility power is often without warning. Coupled with the obsolete legacy equipment, finding support for out of range PLCs is limited. Failure to maintain, test, and troubleshoot PLC Controllers to ensure operation is the leading cause of failure.



Over the past 20 years, technological advancements in industrial automation have brought higher performance process with more memory, better performance, and enhanced capability.

Schneider Electric has taken full advantage of these technological advancements to provide you with the new generation automation platforms to address your needs now and into the future.

Our latest Generation - Modicon 340 & 580 add-on, and improve on the following capabilities:

- **Resiliency**
Programming is stored in non-volatile memory, no longer requiring a backup. Programs may be updated by SD cards.
- **Connectivity**
Upgraded communications for connection through third party devices: Built in serial ports, built in Ethernet, and built in USB port.
- **Security**
Enhanced security profile and security updates designed for the Internet of Things (IoT). Including Achilles level 2 cyber security certification on the M580.
- **Redundancy**
Ability to upgrade to Hot Standby PLC systems & interchangeable parts developed on the M340 & M580 models.

End of Life Matrix

PLC Range	End of Commercialisation	End of Service
SYMAX (all options)	Obsolete	Obsolete
Premium (Conformal Coated options)	01/12/2017	01/12/2025
Quantum CPU and comms (140CPU*, 140NO*, 140CRP*)	01/12/2018	01/12/2026
Premium CPU & I/O (TSX*57*)	01/12/2018	01/12/2026
FactoryCast Gateways (TSXETG3000)	01/12/2018	01/12/2026
Micro PLC (TSX37)	01/12/2019	01/12/2027
PL7 programming software	01/12/2019	01/12/2027
Safety PLC (XPSMF)	01/12/2019	01/12/2027
Legacy platforms / networks (FIP/IO, MM+, CANopen, Uni-Telway)	01/12/2019	01/12/2027
Legacy platforms / accessories (memory, connectors)	01/12/2019	01/12/2027
FactoryCast Gateways (TSXETG1000)	01/12/2019	01/12/2027
Momentum (some IO only)	01/12/2019	01/12/2027
Quantum Safety (140CPU*S)	01/12/2019	01/12/2027
Quantum other I/O & Accessories (140*)	01/12/2021	01/12/2029

Modern Solutions:



M340



M580 ePAC

Protection, Controls & Automation Made Easy

Full Service Support: From Concept to Commissioning

Life Cycle Services are at the heart of Power Service Engineering (PSE). Our professionals meet end-users at their step towards reliability.

Assess

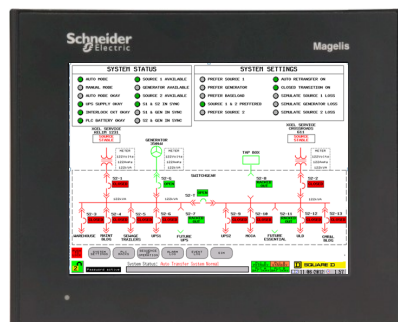
PSE's Professional Engineers specialize at assessing the operation of existing equipment, whether a simple transfer switch or complicated generator controls. Our engineers will determine lifespan, address compliance & design issues, and make recommendations for improvements.

Mitigate Risk

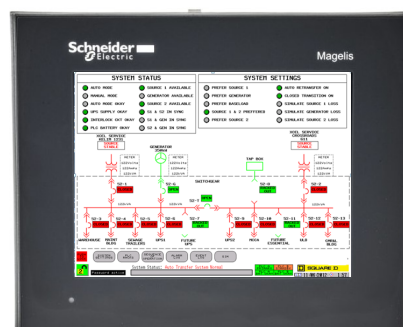
Reduce hazards by testing and maintaining critical power systems. Outages have different causes, ensure your transfer & critical power systems function properly every time.

Plan

Develop goals to improve reliability and plan for modernization. Determine costs, impacts to production, and improve installation outage execution.



HMI XBTGT2120



HMI GTO

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