# Meet the rest of the PowerLogic Family

Non-Meter Power Management Applications

PLUG2022 Presented by: Juan Arias

Confidential Property of Schneider Electric



### PLUG: PowerLogic Users Group

# PowerLogic

Connected power devices to improve quality, reliability, security, safety, asset life and energy efficiency



## Eco**@truxure** Power

The industrial IoT Platform for Power Management



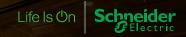
### Flexible

to address the key challenges from safety, reliability, sustainability and cybersecurity

### Scalable

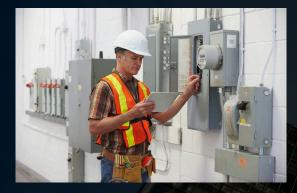
from small facilities to the largest electro-intensive facilities

to 3<sup>rd</sup> party devices and to integration with other operational systems



### Eco**@truxure**<sup>-</sup> Power

Leveraging digital to help improve...



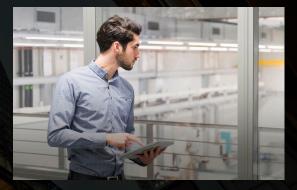
### **Electrical safety**

Safety is the top concern for all organizations. EcoStruxure Power enables augmented visibility into the conditions of the electrical distribution to help facility teams protect staff and occupants from electrical fires, shocks, and arc flashes.



### **Power availability**

Business continuity and performance are the livelihoods of companies in the digital age. Power is essential to ensuring always-on operations and processes. EcoStruxure Power enhances operations staff to avoid downtime and improve the reliability of the electrical system.



### Efficiency

Energy and labor represent the largest variable cost for most organizations. In addition, the trend towards greener facilities is an expectation instead of a niche. EcoStruxure Power helps improve energy performance, operational efficiency, and sustainability of facilities.



# Protect people and assets

Protection and Safety

Power Factor Correction

Power Quality Correction

# PowerLogic P5 and Easergy P3

Take electrical safety and protection to the next level



#### Unique Modularity

Evolutive design, plug-in design, built-in injection, reduced engineering



### Smart and Secure Multi-protocol, programmability and Cybersecurity compliance (IEC62443, Achilles),



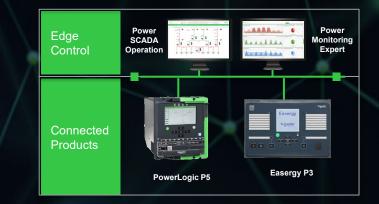
### Reliable & better maintainability <10 min MTTR, extended

operation profile,



### **Enhanced Safety**

Embedded arc-flash protection, safer design, nearby control



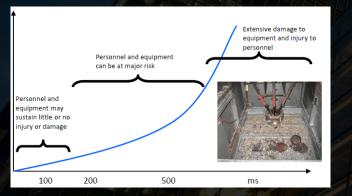




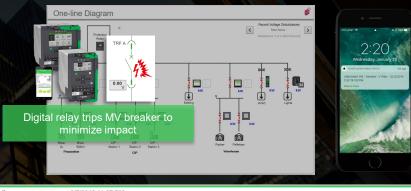
### **Arc Flash Protection**

### Help Protect Staff and Occupants

- Minimize the costs resulting from arc flash damages: downtime, repair time, interruption of processes and equipment
- Reduce or avoid personal injury due to arc flash events
- Improve safety during maintenance activities
- Get real-time visibility for fast response following arc flash events
- Improve arc flash awareness for maintenance teams: remote monitoring, alarming and notification
- Provide post arc flash event analysis



According to NFPA, 5-10 Arc Flash incidents occur every day in the USA



Timeline – Arc Fault at 9/7/20	019 11:37 PM		=
Group by Source	Arc event captured for the Mindow: 2740 ms	11:37 PM	15
	7.22 PM 11:37:33 PM 11:37:34 PM		
Arc Flash Production.Incomer	0		÷
Current Production.Incomer	200.2		:
Voltage (Line to Line) Production.Incomer	Did another power event occur to cause this, or as a result?		-
Voltage (Line to Neutral) Production.Incomer			:
♦ Sag – 86.0% Nominal Voltage Production.Incomer	•	-0	:
Waveform – Start of Sag Production Warehouse	0		1
♦ Sag – 86.0% Nominal Voltage Production Warehouse	•	0	:
Waveform – Start of Sag Production Preparation	0		:
♦ Sag – 86.0% Nominal Voltage Production Preparation	•		:
Waveform – Start of Sag Production.CleanInPlace	0		÷ -



## Operations notified of event

# 02

# Increase operational efficiency

Protection and Safety Power Factor Correction

Power Quality Correction

# PowerLogic PFC Capacitor Banks

Smart Power Factor Correction



#### Green

Reduce carbon footprint and achieve sustainability goals



### Smart Self-monitorin

Self-monitoring to optimize maintenance and avoid downtime



### Reliable

Best-in-class SE components for superior performance & life span



### Safe

Uncompromised safety with best-in-class design

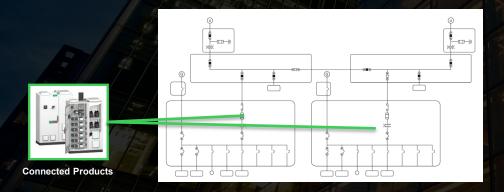


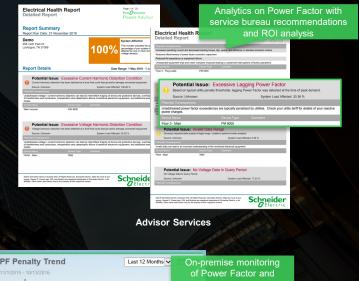


### Power Factor Correction Reduce Energy Usage, Co2 and Costs

- Many utilities penalize lagging Power Factor or reactive power consumption

   Simple ROI story to start an energy cost management discussion.
- Leverage power metering on inductive loads and system monitoring software to measure leading and lagging power factor.
- Correct power factor with capacitor banks or individual capacitors installed in gear to avoid paying penalties.
- Simple calculable energy savings with fast payback.
- Simple diagnostics and alarming to help ensure proper capacitor operation and facilitate maintenance







**Edge Control Software** 



# 03

# Improve reliability of the electrical network and asset life

Protection and Safety Tangible Results

Power Quality Correction

# PowerLogic AccuSine (PCS+, PFV+, PCSn)

Active Compensation with Smart Power Electronics



### Efficient and scalable

Multi-function, modular design and scalable to a changing network



#### Smart

Optimal setpoint tracking, seamless SW integration, remote troubleshooting



### Reliable

Paralleling and redundancy. Multimaster architecture. Advanced thermal design



### Compliant

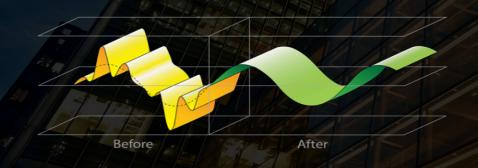
Keep electrical parameters within prescribed limits ensuring a healthy grid

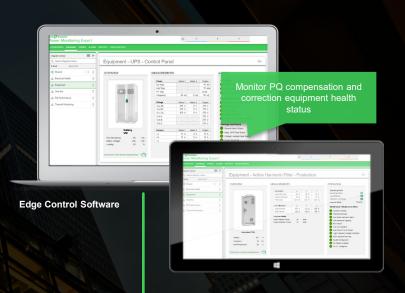


## **Power Quality Correction**

Avoid unplanned downtime from electrical failure

- Help adhere with power quality compliance standards
- Helps ensure energy efficiency by optimizing transformer and cable capacities; reduces utility power factor penalties; and saves the cost of generation and transmission of reactive and harmonic current (non active currents)
- Correct abnormal voltage conditions such as over/under voltages, harmonics (THDi, THDu) and more that affect critical equipment like transformers, drives and PLCs.
- Protect sensitive equipment from brief interruptions with UPS systems.







**Connected Products** 



# PowerLogic

Comprehensive Power and Energy Management Portfolio



# Life Is On Schneider