EcoStruxure™ Power
Energy Cost Performance eGuide

schneider-electric.us/powerandenergy

Life Is On | Schneider Electric

Contents

EcoStruxure Power digitizes electrical distribution

EcoStruxure Power helps facility operations achieve greater operational and cost efficiency

For many large buildings and critical facilities, energy can represent a significant portion of variable costs. Operations and maintenance teams are often unaware of the financial impact of the operational energy usage. Conversely, financial teams are not aware of how energy is consumed.

Save money by reducing energy spend

EcoStruxure Power leverages digitization to provide insights into how energy is used and helps identify opportunities for quick-win energy cost savings through Utility Bill Verification and Power Factor Correction.

Read the white paper

Challenges and Opportunities

Challenges facing many energy-intensive facilities

There is a disconnect between energy users and those that account for that energy.

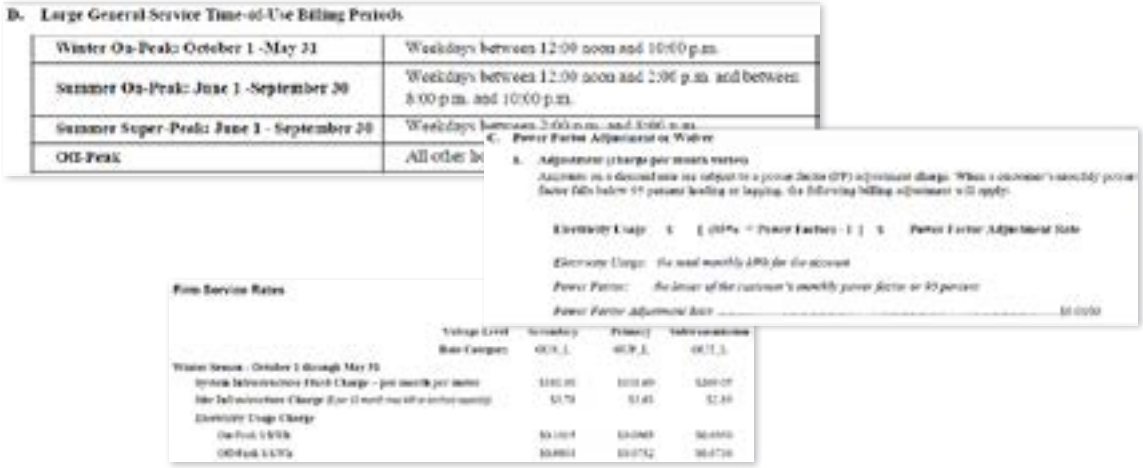
"We run the facility and focus on operations. We never see how much our company pays for energy.

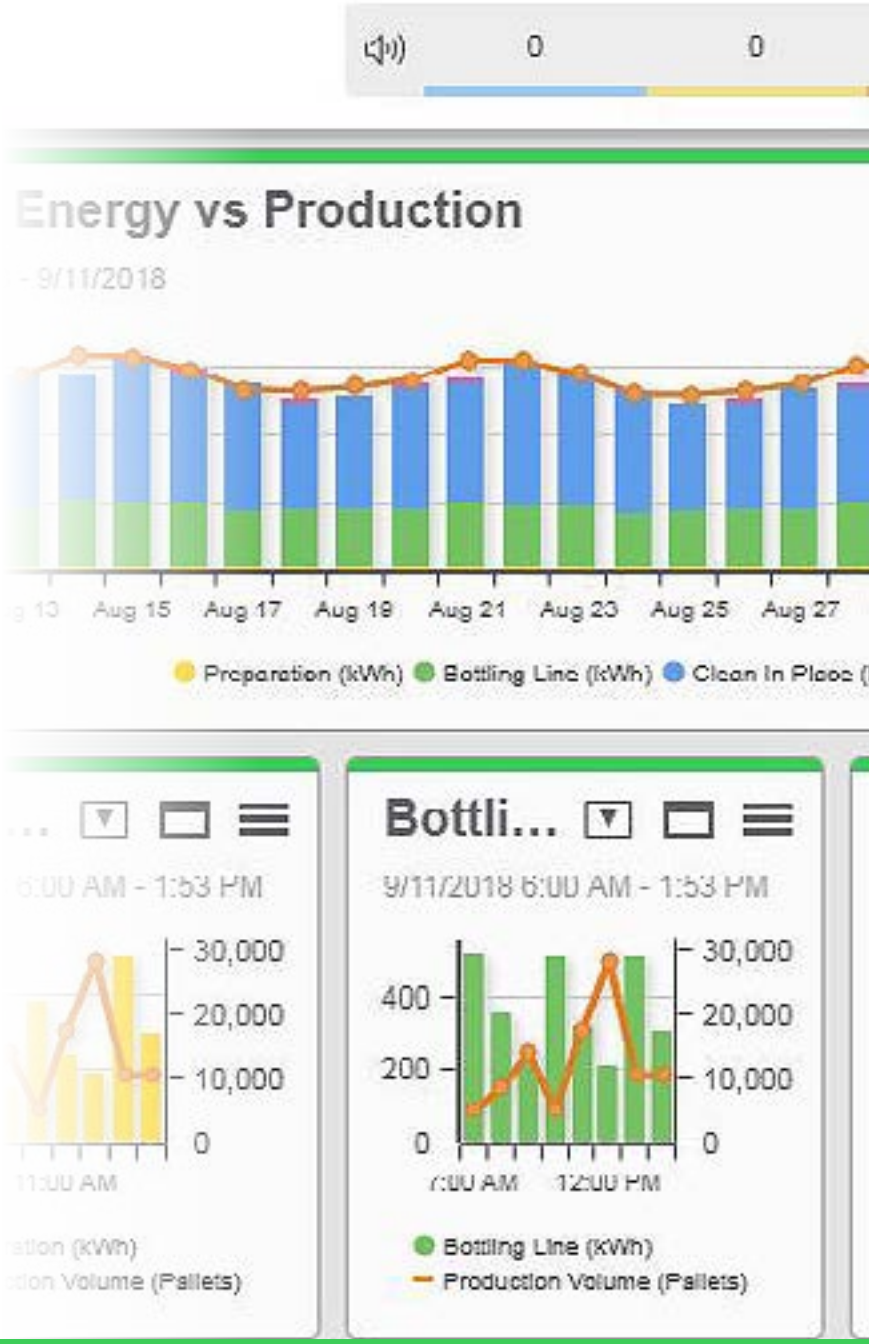
"We pay the utility bills every month… it's just the cost of doing business.

Electrical energy has special billing considerations

Unlike water or natural gas, electricity has special considerations:

- Power factor penalties
- Time of use energy usage charges
- Peak kW demand charges





Utility billing discrepancies can happen

Mistakes happen. Ensure you check your bills.

Check for discrepancies and verify your bills are correct.
Some common utility billing errors include:

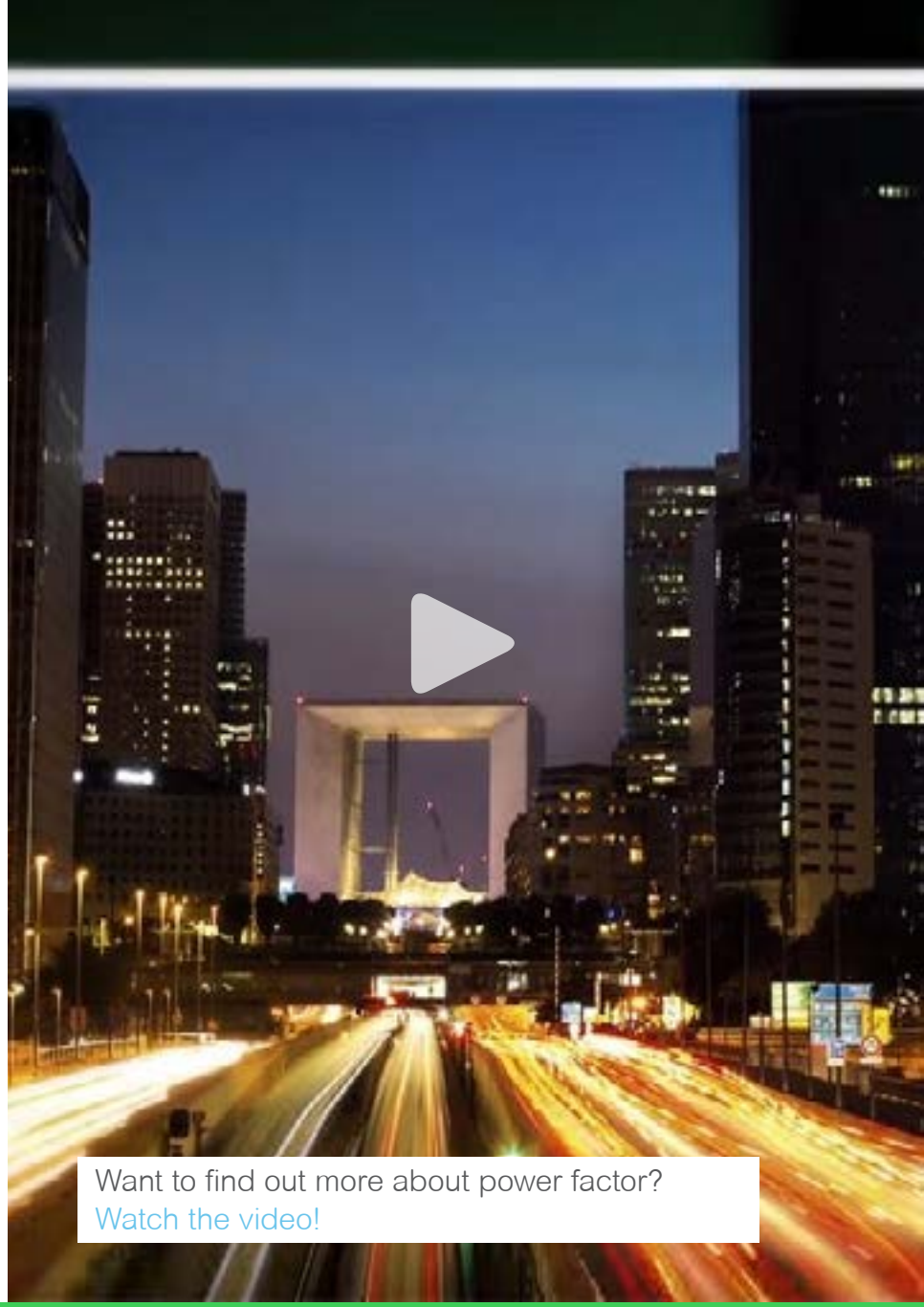
- Invoice billing period overlaps with a previous bill
- Balance Brought Forward (BBF) applied to wrong account
- Error in invoice calculation
- Supplier contract period overlap
- Exception deviation compared to previous periods
- Invoice sent for closed account
- Wrong rates applied on a bill
- Account credits not adjusted on new invoice
- Incorrect meter reading
- Duplicate line-item charges

Other impacts on energy costs

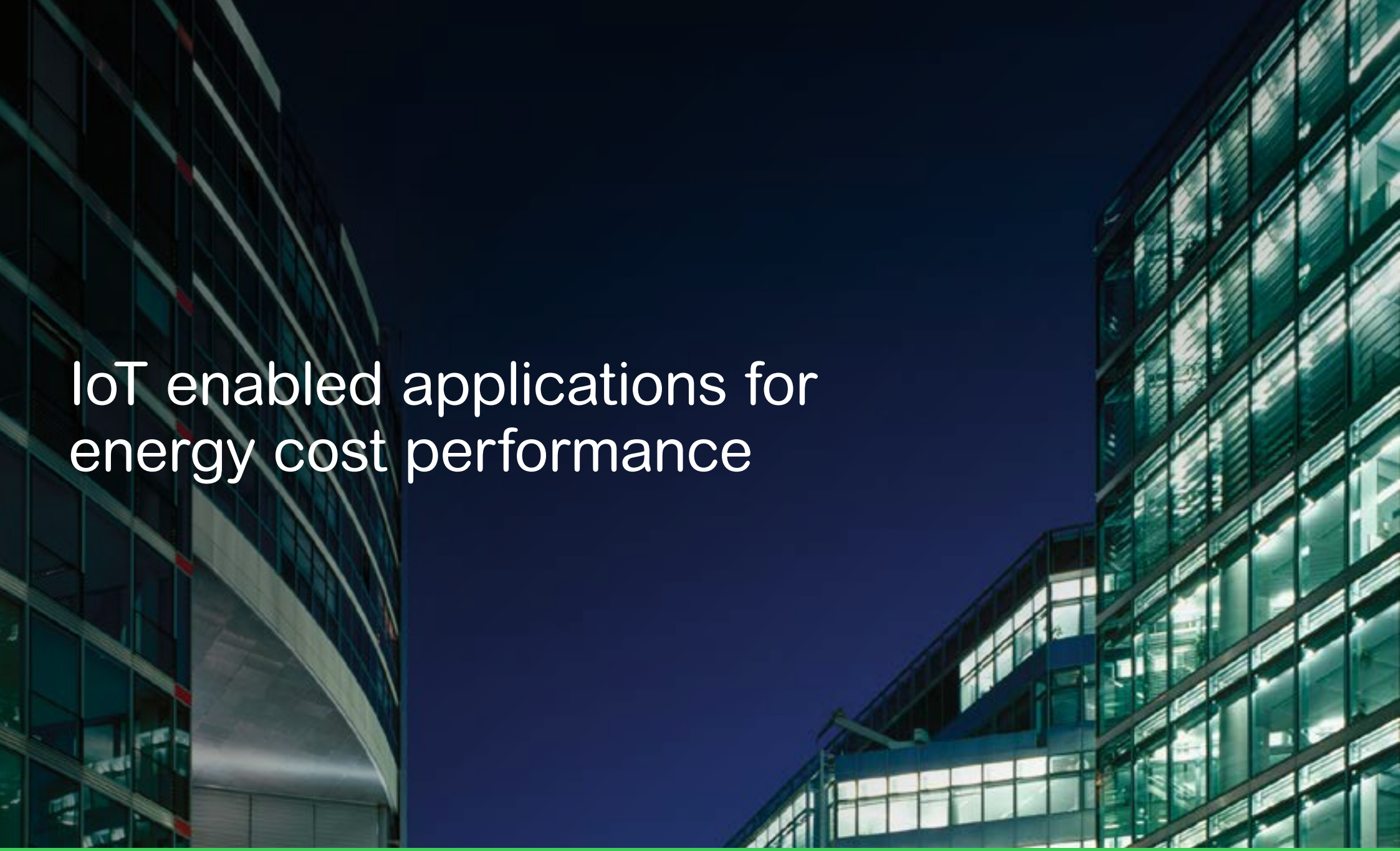
Leading/Lagging Power Factor

Electrical loads common in large commercial and industrial applications can also cause leading and lagging power factor (e.g. induction motors).

Many utilities often charge significant penalties on the utility bill for reactive power. With the installation of power factor compensation equipment, you can turn these penalties into easy ROI.



Want to find out more about power factor?
Watch the video!



IoT enabled applications for energy cost performance

Utility Bill Verification

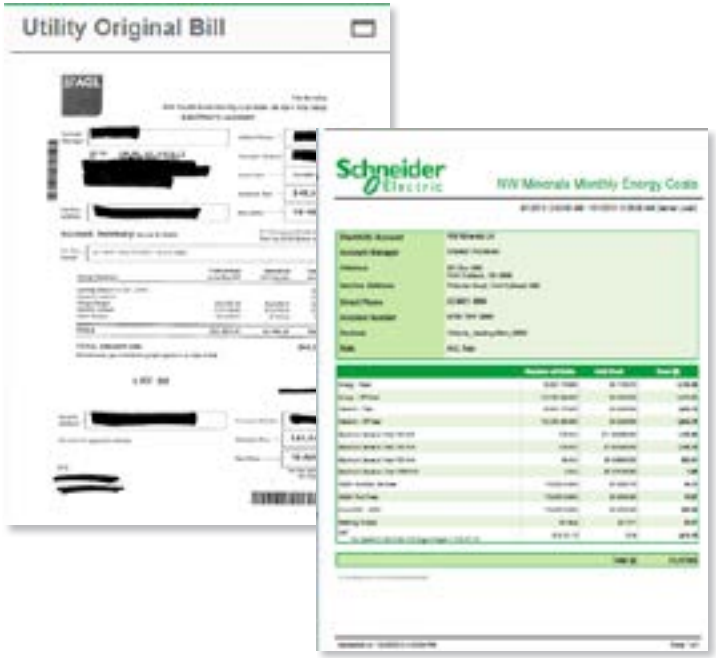
How can you reduce energy spend?

- Utility Bill Verification
- Power Factor Correction

> I want to verify that my utility bill is accurate, both from a metering and bill calculation perspective.

Compare utility bills with internally generated shadow bills

- Regular system health checks (for missing or incorrect data, devices missing in the hierarchy, stagnant or misreported values, devices reaching the end of their supported life)
- Recommend ways to improve data quality and system performance to ensure system reliability and meet ISO5001 standards
- Enable good decision making and improved operations by providing the right data
- Provide expert support throughout the lifecycle of your system to keep it current



Power Factor Correction

How can you reduce energy spend?

Utility Bill Verification

Power Factor correction

"I want to lower my utility bill by eliminating any power factor penalties.

Avoid power factor penalties

- Many utilities penalize lagging power factor or reactive power consumption
- 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
- Conduct simple diagnostics and alarming to ensure proper capacitor operation and facilitate maintenance

Find out more!

Architectures

Architecture 1 | Architecture 2

Utility bill verification

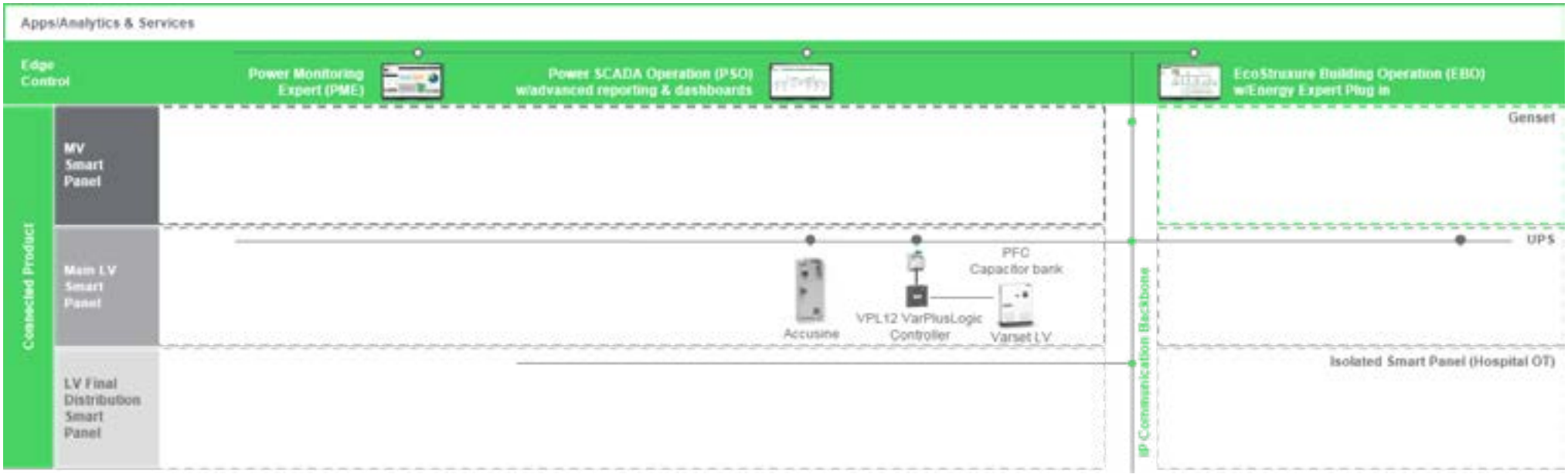
Starting with a power meter on the main utility service entrance with accuracy that of or better than the utility meter, a ‘shadow’ utility bill can be automatically generated and shared with accounting to compare with the actual energy bill.

Architectures

Architecture 1 | Architecture 2

Power factor correction

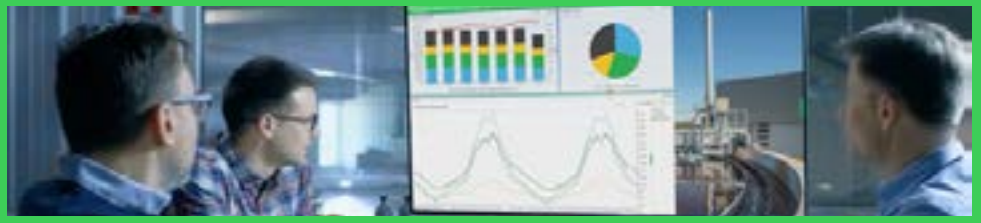
Power factor correction can be a fast way to save on energy cost through installation of capacitor banks, or via active harmonic correction, in order to eliminate any power factor penalties charged by many utilities.



Learn more

White paper: Power Management for a Changing World.

Blog: What Can You Learn About Power from a Pint of Beer?



White paper: Mitigating Risk Using Power Management Systems

Contact us to start your journey.

schneider-electric.us/powerandenergy

998-20406239_US_NEMA

Life Is On | Schneider Electric™