**4 ways power digitalization gets your building closer to net-zero**

February 8, 2024

3 min read | [Arnaud Cantin](https://blog.se.com/author/arnaud-cantin/)

The earth’s [hottest summer](https://www.noaa.gov/news/earth-just-had-its-hottest-june-on-record) in recorded history and our oceans’ highest documented surface temperatures are stark reminders of global warming’s devastating effects and the urgency to decarbonize. Buildings, in particular, are responsible for[40%](https://architecture2030.org/why-the-building-sector/) of global CO2 emissions and [waste 30%](https://www.energy.gov/eere/buildings/about-commercial-buildings-integration-program) of their consumed energy. The United Nations notes that buildings’ carbon emissions must [be reduced by 45%](https://www.un.org/en/climatechange/net-zero-coalition#:~:text=To%20keep%20global%20warming%20to,reach%20net%20zero%20by%202050.) by 2030 to reach net-zero by 2050. Building decarbonization is crucial in the [race to net-zero](https://www.se.com/ww/en/insights/post/the-path-to-net-zero-buildings/).



Buildings are at the forefront of transformative change

To unlock the full potential of sustainability, energy efficiency, and the drive to net-zero, [our eGuide](https://go.schneider-electric.com/WW_202312_Power-Digitalization-Decarbonization-eGuide_Blog-SF-LP.html) explains why buildings must embrace digitalization.

**Digitalization leverages digital technologies to monitor and measure your energy use and carbon impact. It provides powerful data and insights to help you take action to reduce your overall operational emissions.**

While digitalization is not limited to specific industries or sectors, it is transformative when applied to a [building’s](https://www.se.com/ww/en/work/campaign/innovation/buildings.jsp) electrical network — known as [**power digitalization**](https://www.se.com/ww/en/work/solutions/power-management/). This is the essential first step toward reducing energy and carbon emissions.

When smart devices like wireless thermal sensors, intelligent controllers, power factor correction devices, and power quality meters are connected to the power network, valuable data is collected and shared with an [energy and power management system](https://www.se.com/ww/en/work/solutions/power-management/#Digitalizeyourbuilding) (EPMS) software. Buildings with large system loads (e.g., on-site EV charging stations) require real-time energy consumption management to optimize costs and CO2 emissions (e.g., charge when CO2 grid intensity is low and energy is usually cheaper).

You can leverage the availability of real-time intel — energy consumption, power capacity analysis, and electrical asset availability and performance — to:

* Simplify management tasks and accelerate decision-making
* Automate control of energy flows
* Guide facility managers towards highest return actions

Power digitalization provides critical measuring and monitoring of energy use and carbon emission across your portfolio by providing:

1. Increased visibility for analysis and reporting with [cloud-based or on-premise energy and power management systems](https://blog.se.com/buildings/building-management/2022/06/21/cloud-based-building-energy-management-software-simplifies-code-compliance-and-meets-sustainability-goals/) for mid-size, large, or critical buildings.
2. Advanced insights into energy- and carbon-savings opportunities with proactive and analytics-based metering data diagnostics.
3. Improved efficiency by leveraging modern power management systems to enable seamless data sharing and closely monitor power quality and energy waste.
4. Enhanced reliability, safety, and uptime of your electrical distribution system.

A fully digitalized electrical infrastructure is essential for realizing net-zero goals

[Swire Properties](https://www.se.com/ww/en/work/campaign/life-is-on/case-study/swire-properties.jsp), which manages buildings across Hong Kong and mainland China, needed to reduce energy consumption and adopt a more integrated approach to sustainability goals. Using an EPMS, wireless meters, and a service plan to proactively manage its electrical systems, Swire can monitor, benchmark, and analyze the energy and operational performance of their office buildings and shopping malls to identify energy-saving opportunities. They expect **10 to 20% annual energy savings** while reducing their carbon footprint to meet their sustainability goals.

Power digitalization transforms the management of electrical networks in buildings. By integrating smart devices, advanced software, and data analytics, businesses can achieve improved:

* Energy efficiency
* Asset performance
* Integration of renewable energy sources

**Net-zero is the goal, and power digitalization is the path that leads us there.**

For more information

Learn more by downloading [our eGuide](https://go.schneider-electric.com/WW_202312_Power-Digitalization-Decarbonization-eGuide_Blog-SF-LP.html), explaining how power digitalization provides the required measurement and monitoring to maximize electric asset efficiency and deliver the energy visibility, flexibility, and insights needed to achieve net-zero.

**Tags:** [carbon emission](https://blog.se.com/tag/carbon-emission/), [digitalization](https://blog.se.com/tag/digitalization/), [eGuide](https://blog.se.com/tag/eguide/), [EPMS](https://blog.se.com/tag/epms/), [Net-Zero Buidings](https://blog.se.com/tag/net-zero-buidings/), [Power Digitalization](https://blog.se.com/tag/power-digitalization/)

Add a comment