



# Modernize your building management system to accelerate the path to net zero

Reduce emissions and reinforce cybersecurity  
with EcoStruxure™ Building Operation

[se.com/ecostruxure-building](https://se.com/ecostruxure-building)



## Federal buildings must securely reduce their emissions

The December 8th, 2021 Presidential Executive Order directs “a 50 percent emissions reduction” in Federal buildings by 2032, leading to “a net-zero emissions portfolio by 2045”. In addition, the January 26th, 2022, Presidential Executive Order requires Federal buildings to meet cybersecurity standards, specifically the “Federal Zero Trust Architecture” (ZTA), before the end of Fiscal Year 2024.

**Schneider Electric’s BMS solutions drive emissions towards 50% reduction with secure-by-design architectures.**

### Did you know:

- Modernizing your Schneider Electric BMS does not require a rip & replace of the entire system
- Convergence of IT and OT is making buildings more vulnerable to cyberattacks
- Many Federal facilities already benefit from Square-D by Schneider Electric’s electrical power metering

~55%

heating energy reduction achieved by implementing best-in-class control sequences during recent HVAC retrofit

(ASHRAE Journal, April 2021)

### Why start now with modernization?

Reducing building emissions beyond 50%, and onto a path for net-zero, will require BMS integration across systems for smart optimizations. EcoStruxure Building Operation’s open and secure integration framework allows collaboration across third-party systems to enable a cybersecure path to decarbonization. BMS modernization will provide the first step to your target by yielding emissions reductions today, and ensuring simple new technology expansion tomorrow.

- Get actionable insights to better manage and optimize buildings
- Meet today’s increased cybersecurity and compliance requirements
- Prepare your building for lower-emitting on-site renewable energy and electric vehicle charging

# Challenges of maintaining an outdated BMS

## 1. Delayed decarbonization

Next generation Building Management Systems feature powerful new IoT functionality and grid-interactive capability to curb emissions

## 2. Security risk

As IT and OT converge, under-protected OT systems without a modern IP backbone are at higher risk of hacking

## 3. Supply chain disruption

Service support and replacement parts can become expensive and increasingly difficult to obtain for systems approaching obsolescence

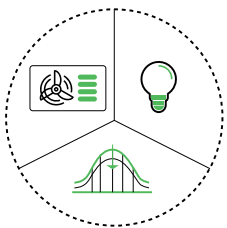
## 4. Skillset availability

Technicians who work on older systems are in short supply, requiring a premium to pay for their specialized skills



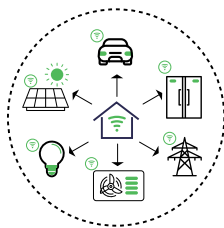
# Transform your facility into a Grid-Interactive Efficient Building (GEB) and unlock these characteristics today

Source: US Department of Energy ([energy.gov/eere/buildings/geb](https://energy.gov/eere/buildings/geb))



### Efficient

Persistent low energy use minimizes demand on grid resources and infrastructure



### Connected

Two-way communication with flexible technologies, the grid, and occupants



### Smart

Analytics supported by sensors and controls co-optimize efficiency, flexibility, and occupant preferences



### Flexible

Flexible loads and distributed generation/storage can be used to reduce, shift, or modulate energy use



Your first step is a BMS modernization to EcoStruxure

# Benefits of modernizing to EcoStruxure Building

EcoStruxure Building leads the industry with the most advanced technology and solutions to make buildings smarter, more efficient and future-ready:

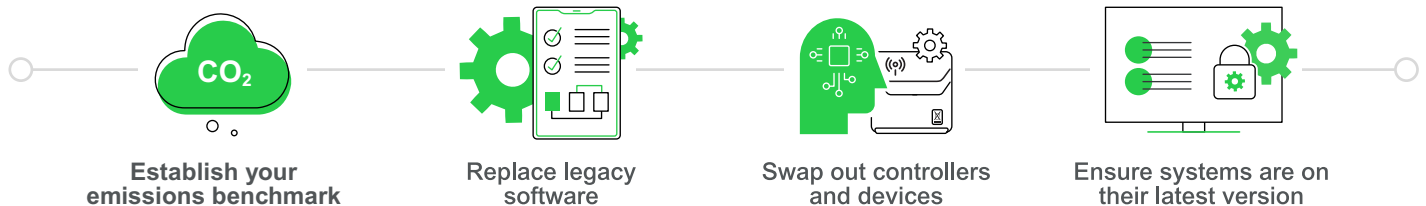
- Open and scalable integration: system-to-system and system-to-device
- ISA/IEC 62443-4-1 certified Secure Development Lifecycle process to design-in security for enhanced resilience
- The latest IP-enabled infrastructure, hardware and software
- Access to cloud-based value-added services and insightful analytics
- Features to address flexible building needs and new ways of working



## Take these steps for a future-ready BMS

Schneider Electric™ has the tools and pathways to seamlessly modernize your BMS to EcoStruxure Building Operation in pursuit of 2021's Executive Orders.

Our trusted experts will guide you to the latest BMS solution in a step-by-step approach tailored to your specific needs, budget and schedule.



**We provide a complete solution for your buildings with a flexible approach to meet your budget and timelines. Our approach to modernization can be phased to ensure minimal business disruptions while enabling you to take advantage of the latest building technologies as soon as the process begins.**



## White House briefing room excerpt

President Biden Signs Executive Order Catalyzing America's Clean Energy Economy Through Federal Sustainability (December 08, 2021) U.S. Government Will Lead by Example to Leverage Scale and Procurement Power to Drive clean, Healthy and Resilient Operations.

The President's executive order directs the federal government to use its scale and procurement power to achieve five ambitious goals:

- 100 percent carbon pollution-free electricity (CFE) by 2030, at least half of which will be locally supplied clean energy to meet 24/7 demand;
- 100 percent zero-emission vehicle (ZEV) acquisitions by 2035, including 100 percent zero-emission light duty vehicle acquisitions by 2027;
- Net-zero emissions from federal procurement no later than 2050, including a Buy Clean policy to promote use of construction materials with lower embodied emissions;
- A net-zero emissions building portfolio by 2045, including a 50 percent emissions reduction by 2032; and
- Net-zero emissions from overall federal operations by 2050, including a 65 percent emissions reduction by 2030.

Sustainability EO Source: [https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/08/fact-sheet-president-biden-signs-executive-order-catalyzing-americas-clean-energy-economy-through-federal-sustainability/?utm\\_source=newsletter&utm\\_medium=email&utm\\_content=Executive%20order%20fact%20sheet&utm\\_campaign=Weekly%20Buzz%20-%20112818](https://www.whitehouse.gov/briefing-room/statements-releases/2021/12/08/fact-sheet-president-biden-signs-executive-order-catalyzing-americas-clean-energy-economy-through-federal-sustainability/?utm_source=newsletter&utm_medium=email&utm_content=Executive%20order%20fact%20sheet&utm_campaign=Weekly%20Buzz%20-%20112818)

Cybersecurity EO Source: [https://www.whitehouse.gov/wp-content/uploads/2022/01/M-22-09.pdf?mc\\_cid=3c861d14ce&mc\\_eid=UNIQID](https://www.whitehouse.gov/wp-content/uploads/2022/01/M-22-09.pdf?mc_cid=3c861d14ce&mc_eid=UNIQID)

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January 2022