

OpenBlue

Net Zero Buildings

Federal Building Performance Standard



What the law is about

On December 7, 2022, the Biden–Harris Administration announced the first–ever Federal Building Performance Standard (BPS). It requires that each federal agency eliminate all Scope 1 emissions – that is, emissions produced by on–site fossil fuel use – from 30% of its total building area by 2030. Agencies must set interim targets, beginning in fiscal year 2024. The Council on Environment Quality (CEQ) and the United States Office of Management and Budget (OMB) will review the agencies’ progress annually, and will provide corrective action plans if the targets are not met. The General Services Administration will leverage \$1 billion to achieve these goals.

Agencies that are unable to meet the 30% performance path have a prescriptive option. It requires them to implement all “practicable electrification” of heating and hot water systems, taking into account cost effectiveness, market availability and performance. All other systems that are not exempt for mission critical or emergency uses such as cooling, cooking and laundry needs must be electric. For these cases, equipment–specific replacement guidance is provided in an appendix to the BPS. Further, if potential facility upgrades are not lifecycle cost–effective, those facilities will not count towards the 30% requirement.

The Federal BPS does not use performance targets, nor are requirements specific to building type. All building types and sizes may count towards the 30% target, with the goal simply

to remove on–site fossil fuels. Additionally, the policy does not add specific efficiency requirements. The standard states “electrification upgrades should use high efficiency technologies and strategies to support energy use intensity reduction targets and deep energy retrofits.”

What it means for you

- No later than 2028, CEQ will set new 2038 and 2045 targets for the percentage of buildings that every agency must electrify.
- Policy compliance is not retroactive. Buildings that were fully electric prior to October 1, 2021, will not count towards the 30% requirement.
- The standard allows exceptions for mission critical activities such as national security, and for process loads “for which no practicable strategy exists to eliminate Scope 1 emissions.”
- While the Federal BPS may not fit the more common definition of a BPS, it does not operate in a vacuum. The Executive Order on Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability, for example, requires that all agencies achieve net–zero emissions across their portfolios by 2045, with a 50% reduction from 2008 levels by 2032. The focus of the current policy is on Scope 1 emissions, but the broader context will help ensure that equipment replacement is completed with both efficiency and electrification in mind.

How we can help

Partner with Johnson Controls to develop an excellent sustainability and resiliency program to comply with Building Performance Standards laws. We'll build your business case to meet your needs, and we'll help balance the traditional conflict between cost savings and investment. We offer a wide assortment of building systems that can help you reduce your facility's emissions. We blend technical and operational expertise with our reputation for quality.

Step 1: Assess your facility.

We look at current and anticipated use to understand present energy usage, plan for energy needs, and review indoor air quality. We also make sure all your systems are right sized for your facility, which is essential for efficient operation.

Step 2: Help build your business case.

Our team develops models specific to your equipment and facility, giving you a clear picture of potential efficiency gains and lifecycle cost improvements. We draw on our industry know-how to incorporate additional opportunities to optimize performance.

Step 3: Recommend next steps.

We lay out a step-by-step plan for you to modernize against your goals and budget. We give you a menu of options and recommendations that make sense for your facility, and we include a range of smart technologies, such as tools to support predictive maintenance.

HVAC Equipment and Hydronic Systems

We offer the largest portfolio of HVAC equipment and controls in the world. With expertise in mechanical retrofitting existing systems, our team performs audits of the current equipment and identifies deficiencies that prevent you from meeting regulations and best practices in indoor air quality. From there our experts will design and recommend solutions to meet today's energy, decarbonization and healthy buildings initiatives.

Building Automation Systems and Controls

Our next generation building automation systems make it possible to extend automated control to every building system from a single platform. We make everything from simple, configurable controls to highly programmable automation systems for entire facilities. Our systems allow you to improve control of your key systems and improve desired outcomes against your goals for indicators such as CO2, Energy Use Index (EUI), kWh, emissions intensity.

Accessible Digital Tools

Our suite of tailored, AI-powered digital solutions optimize building performance through predictive maintenance, remote diagnostics, emission management, goal and targets, and more. Leverage our OpenBlue platform to integrate with Metasys and third-party BMS to deliver optimal building outcomes, ensuring compliance with building performance standards while also balancing comfort, air quality, costs and emissions.

Water Usage Reduction

We supply the expertise and funding mechanisms to provide water and energy conservation solutions for businesses. By helping decrease water leakage and operational costs, we can reduce water consumption by up to 50 percent. Water heaters can be upgraded from fossil fuel fired to electric, or we can provide high efficiency or indirect options. Our experts are able to calculate the most effective ways to reduce water usage in sinks and toilets.

Lighting

We partner with the world's premier lighting innovators to revolutionize interior and exterior lighting. Our experienced lighting engineers have designed and executed hundreds of millions of dollars in lighting projects around the world. By integrating the lighting systems to work in conjunction with existing building systems the result is a holistic system better suited for energy efficiency, convenience and security. From clinics to classrooms, these intelligent lighting systems provide advantages well beyond energy savings to help buildings run more efficiently.

Your partner in sustainability and net zero

As leaders in sustainability and net zero, our approach brings together expertise with leading capability to deliver energy efficient outcomes through our building and infrastructure management services. Upon review of your goals and your facility, our team advises on all aspects of ESG and sustainability to provide a comprehensive roadmap of actions and solutions to meet the critical milestones.

Ready to get started?

Contact your local Johnson Controls representative or visit johnsoncontrols.com/BPS

