HONEYWELL FORGE

Sustainability+ for Buildings

INTEGRATE YOUR BUILDINGS INTO YOUR SUSTAINABILITY STRATEGY

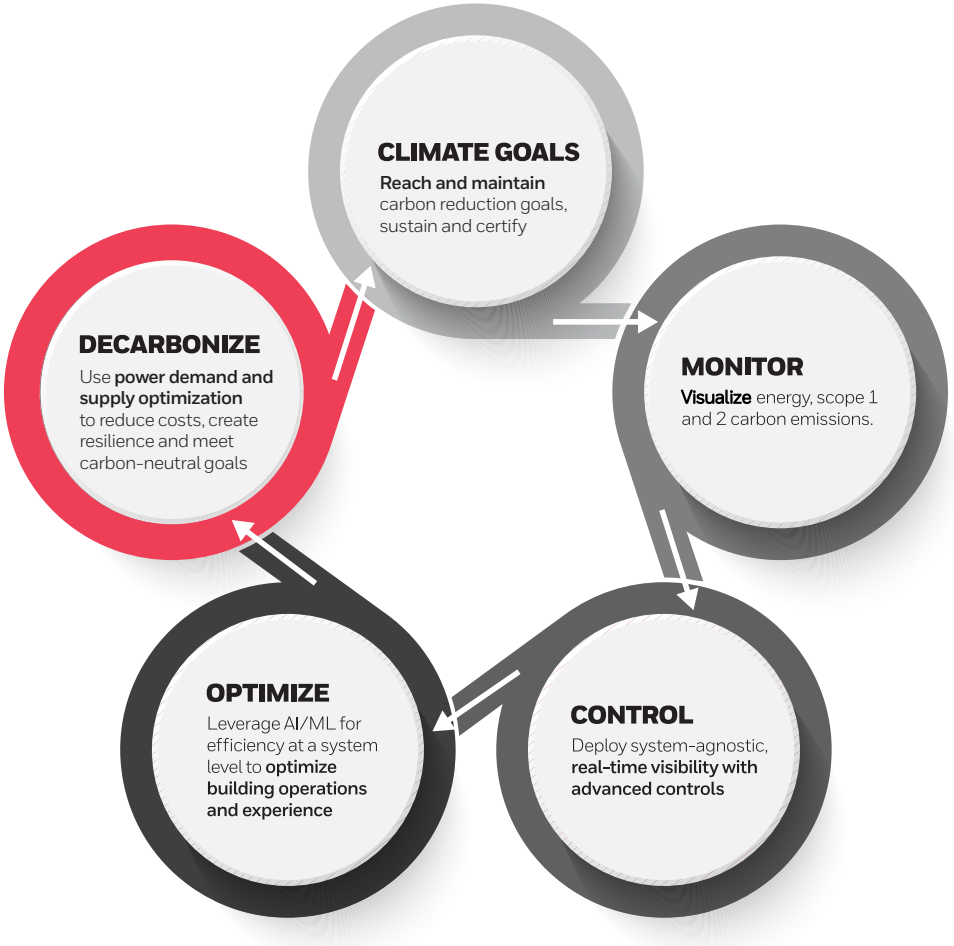
Buildings can contribute significantly to driving your sustainability transformation

THE OPERATING SYSTEM FOR YOUR SUSTAINABILITY JOURNEY

Building owners and operators face competing challenges as occupants increasingly demand safe, healthy spaces, and operational cost control meets the challenge of contributing to a more sustainable world. That's why we've created Honeywell Forge Sustainability+ for Buildings. We believe you can achieve all these goals – critical to successfully operating buildings from the site to enterprise level – through a single data and analytics-driven platform.

Honeywell Forge Sustainability+ for Buildings is an autonomous controls platform with a suite of applications ready now to help manage the environmental impact of a building without compromising operational outcomes.

The scalable, system-agnostic platform is part of the Honeywell Forge for Buildings comprehensive approach to building systems operations and management, from a single site to an entire portfolio. Designed to meet customers' needs, its advanced controls capabilities use artificial intelligence (AI) and machine learning (ML) algorithms to create a baseline of energy consumption and carbon emissions across building assets and can help monitor, control and optimize those assets. It can also help support carbon reduction goals and help build resilience by managing different power sources.



How is your sustainability journey progressing?

BEYOND ENERGY DATA: CONTROL OF YOUR SUSTAINABILITY STRATEGY

Sustainability is not a buzzword. It's now a priority for many stakeholders around the world.

According to the United Nations Environment Programme (UNEP), the buildings and construction sector accounted for around 37% of energy- and process-related carbon dioxide (CO_2) emissions and more than 34% of energy demand globally in 2021.[1]

Integrating your building into your sustainability strategy is critical for success.

Whether your goal is compliance, savings, carbon reduction or increased return on investment, sustainability can be a competitive advantage when you have a way to turn siloed energy data into a strategy.

While it's important to have data, it's critical to be able to leverage it to drive outcomes. Honeywell Forge Sustainability+ for Buildings goes beyond identifying outliers and opportunities within a building portfolio. It enables users to take the actions needed to correct or stay on course. The platform's advanced control capabilities enable customers to adjust building systems – either manually or autonomously – to help reduce energy use and carbon emissions.

1. United Nations Environment Programme (UNEP), 2022 Global Status Report for Buildings and Construction. (Accessed 6 December 2022.)

CAPABILITIES THAT BUILD AND SCALE

Buildings aren't static structures. The demands on them, how people use them and the regulations impacting them can change frequently. Managing one building can be hard. Managing multiple buildings can be a monumental task.

Honeywell Forge Sustainability+ for Buildings is designed to help make managing these demands easier. The platform's applications build upon one another so that you have the flexibility to manage your sustainability journey at your own pace, no matter where you're starting.

TURN A PARADOX INTO YOUR COMPETITIVE EDGE

Looking beyond sustainability goals, building occupants also expect healthier spaces, with an emphasis on indoor air quality.

These don't have to be competing priorities but can become complementary goals with the right strategy. Working to create a more sustainable and healthier building or portfolio can be a competitive advantage to attract investors and tenants while managing operational costs and environmental impact.

Honeywell Forge Sustainability+ for Buildings can help optimize energy use and reduce carbon emissions – and even potentially utility costs – from a single site to across a portfolio of buildings.

AN ECOSYSTEM OF INTELLIGENT APPLICATIONS

Honeywell Forge Sustainability+ for Buildings can help you achieve complex goals. It can help reduce energy consumption and scope 1 and 2 carbon emissions[2] and manage energy costs without compromising occupant comfort.

The platform and its suite of applications sit on top of your building management system (BMS) to help you achieve your sustainability goals while avoiding unnecessary tradeoffs. The BMS-agnostic system can provide value to any building with flexible customizable information levels that meet you where you are in your journey.

FLEXIBLE PACKAGES TO MEET YOUR NEEDS

WITH Honeywell Forge Sustainability+ for Buildings is a cloud-based subscription that includes everything you need from software and sensors to integration, consulting and ongoing service. Simply pay for the services you need from your building's operating budget.

2. Scope 1 and scope 2 greenhouse gas emissions are measured using the latest standards from the Intergovernmental Panel on Climate Change's Fifth Assessment Report (IPCC AR5).

A SUITE OF APPLICATIONS TO ACHIEVE OUTCOMES THAT MATTER

CARBON AND ENERGY MANAGEMENT

Honeywell Forge Sustainability+ for Buildings | Carbon and Energy Management ends the hassle of accessing and analyzing siloed energy and carbon data. It enables you to manage and control that data.

This application deciphers how your building uses energy while providing a clear analysis of energy and carbon emissions (scope 1 and 2) at the asset, site and portfolio levels. The application uses smart meters, sensors and utility data to segment actual consumption and energy emissions by type of utility. It then analyzes that data alongside factors like weather, occupancy and utility rates to provide insight into building performance.

The application doesn't just monitor energy performance. It also features advanced control capabilities with real-time insights into the control of equipment and HVAC schedules. This means you can take measurable action before an increase in energy consumption, service costs or equipment deterioration.

Depending upon the package, you can monitor, control and even optimize your building's performance to help reduce energy consumption and carbon impact.

CARBON AND ENERGY MANAGEMENT

MONITOR

PACKAGE KEY FEATURES

- Tracks energy use, scope 1 and scope 2 emissions and key performance indicators (KPIs)
- Enables Energy Star® integration for benchmarking sites and helps improve Energy Star® score
- Helps improve productivity by reducing energy and carbon emissions reporting time
- Manages utility bills and bill analysis for greater insight into costs incurred and how to avoid in the future
- Features standard reporting capability providing a detailed overview of building or building portfolio

CONTROL

PACKAGE KEY FEATURES

- Integrates with any BMS to manage alarms and alerts, monitor points, adjust schedules and proactively control your building
- Monitors live meter data for CO_2 emissions, energy and utilities
- Includes alarm console to easily manage critical assets and KPIs with easy configuration of energy related alerts
- Helps building operators and occupants understand indoor air quality with an easy-to-understand KPI dashboard that can provide reassurance on building health
- Tracks multiple indoor air quality measures, including temperature, relative humidity, carbon dioxide (CO_2), fine particulate matter (PM2.5) and volatile organic compounds (VOCs)
- Enables non-intrusive-load-management, providing a simpler way to break down energy consumption to equipment level, for control and optimization
- Allows for Energy Star integration to benchmark energy usage intensity

OPTIMIZE

PACKAGE KEY FEATURES

Uses reinforced machine learning (ML) and artificial intelligence (AI) algorithms to analyze historical and real-time weather data, HVAC data and IAQ parameters, and then autonomously adjust systems to meet desired parameters

- Improves HVAC energy use, both airside and waterside
- Optimizes energy-intensive assets such as chillers, boilers, fans, water source heat pumps, air-handling units, condensers, lighting and more
- Reduces need for manual intervention
- Extends asset performance and lifecycle through continuous optimization
- Integrates with Honeywell Forge Performance+ for Buildings | Predictive Maintenance for end-to-end case management and service resolution
- Helps buildings achieve WELL certifications or ratings from the International Well Building Institute
- Gives the flexibility to set the operational mode you prefer for optimal facility operations – well-being, balanced, energy or autonomous

POWER AND DEMAND MANAGEMENT

Extreme weather events triggered by climate change are predicted to have an increasing impact on our cities and communities – potentially leading to energy shortages and grid instability. The need to prepare for the unexpected is more pressing than ever. Resilience helps improve business continuity. It can also help you achieve sustainability goals and create operational savings.

Honeywell Forge Sustainability+ for Buildings | Power and Demand Management helps create energy resilience by monitoring the status and availability of each load and each power generation asset.

It's your operating system for energy resilience: Monitoring weather conditions, grid status and utility rates to optimize both your building's demand side consumption and on-site supply side generation assets such as solar PV, battery energy storage systems and diesel generators. Leveraging Power and Demand Management and its ability to integrate with third party systems provides powerful tools for end-to-end energy and carbon emissions management across your building portfolio.

- Helps maintain operational continuity
- Supports sustainability goals
- Integrates supply and demand beyond the grid
- Avoids peak demand charges and automate usage with peak shaving, power quality improvement and intelligent load shedding
- Clarifies utility billing
- Manages diverse energy sources
- Uses automation and ML to optimize electricity costs
- Provides analytics from across your portfolio down to specific assets and KPIs

We start with an assessment to help you prioritize your needs. Then we prepare your infrastructure for three core capabilities: monitor, control and optimization of power use.

POWER AND DEMAND MANAGEMENT

BEYOND THE GRID

Delivers a complete microgrid with solar PV, energy storage and traditional generators. Clean sources of alternate power keep buildings and critical services operational, using options such as Honeywell Experion microgrid control systems and Honeywell battery energy storage.

ADAPT IN REAL TIME

Integrates with smart meters, IoT third-party BMS to let you modify usage as needed, including dynamic load management, automated demand response, and distributed energy resources.

DEMAND AND SUPPLY SIDE OPTIMIZATION

Uses AI/ML algorithms to dynamically reduce non-critical building loads and optimize on-site microgrid operations to support critical building functions when the utility is experiencing high usage, frequency changes or even power disruptions.

Transform sustainability goals into action

hwll.co/SustainableBuildings

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