

# Sustainability suite of solutions

Transform workspaces into regenerative places



**5M**

Sensors installed

Up to **90%**

Lighting energy savings

**1000+**

Customer installations

**60**

Countries

**2M**

Tons of total CO<sub>2</sub> reduction

## The sustainability urgency

Converging forces are driving the need for companies to attain aggressive ESG and decarbonization goals.

The ability to attract and retain talent, investor considerations, new regulations, and an authentic consideration for our planet are setting sustainability as a high priority at the C-suite level.

Enlighted has developed a comprehensive suite of integrated solutions, designed to find the perfect balance between energy efficiency and occupant comfort. Unlike any other solutions, the Sustainability Suite leverages industry leading sensors, embedded in lighting fixtures to automate lighting and heating control, while generating highly valued data insights for a multitude of use cases.

## Taking action for real results

Many business leaders are wondering where to begin and are searching for the expertise required to design sustainable, future-proofed real estate portfolios.

Enlighted brings experience to guide you in your sustainability journey.

### Take sustainable and efficient operations to the next level:

- Qualify your buildings for recognition through Green Certifications by optimizing your energy usage
- Enhance your brand image and create company value as a leader in sustainability
- Set a new bar for safety excellence for all occupants
- Increase visibility for customers, partners and job applicants as a highly desirable business

# A perfect balance across people, buildings and our planet

Lighting / HVAC controls and sensor technologies contribute to substantial energy savings, providing ample financial justification for your sustainability investments.






The Sustainability Suite can contribute up to 90% energy savings, with bottom-line impact, while enhancing your public sustainability position.

The Sustainability Suite also grants occupants the ability to create the perfect environment for enhanced productivity without over-heating or cooling your spaces.

Requirement	Enlighted benefits
<p><b>Efficient, autonomous buildings</b></p> <p>Reducing carbon footprint is a strategic imperative, to contribute to world health and protect investor reputation.</p>	<ul style="list-style-type: none"> <li>• Our lighting control system, with software configurable management, creates the most efficient environment to save energy use, only illuminating when occupancy and available daylight dictates – achieving up to 90% energy savings when combined with LED fixtures.</li> <li>• Integration with HVAC can result in additional savings aligning heating/cooling requirements by occupancy levels.</li> </ul>
<p><b>Right-sized real estate portfolios</b></p> <p>Occupancy and utilization data of areas, rooms, floors, buildings, and portfolios information is required to identify the amount of space required for sustainable operations.</p>	<ul style="list-style-type: none"> <li>• A dense sensor grid unlocks the most comprehensive, granular data analysis. You'll have access to actionable insights around space utilization via software applications and data APIs.</li> </ul>
<p><b>Automatic demand response</b></p> <p>Take advantage of utility incentives and reduce overall operating costs.</p>	<ul style="list-style-type: none"> <li>• Energy rate discount and rebate incentive programs typically require on-demand load-shedding.</li> <li>• With our application, create lighting profiles that allow for automatic load shedding when the utility grid is overloaded, without sacrificing employee productivity.</li> </ul>
<p><b>Energy reporting</b></p> <p>Track progress against your sustainable building goals.</p>	<ul style="list-style-type: none"> <li>• Understand energy usage in Watt-Hours for each floor, area, group, or fixture. Energy data is stored with 5-minute resolution, enabling sophisticated analysis of energy usage patterns. Plug-load control devices, both monitor and switch outlet load as per Title 24 code requirements.</li> <li>• Analysis of achieved energy saving split by occupancy, daylight harvesting, task-tuning, and the aggregate savings calculated, to be leveraged for internal benchmarking or contributing to ESG reporting for publicly traded companies.</li> </ul>
<p><b>Employee comfort and well-being</b></p> <p>Balance aggressive sustainability goals with occupant comfort - and put environmental controls in employees' hands</p>	<ul style="list-style-type: none"> <li>• The Touchless Workplace solution gives employees on-demand control to warm or cool a space. Machine learning identifies personal temperature preferences and proactively applies them over time. Employees are empowered to adjust type and brightness of lighting and raise or lower window shades.</li> <li>• Hot and cold calls to facilities can be virtually eliminated, improving operational efficiency and responsiveness to employee needs.</li> </ul>

## The sustainability suite

Enlighted’s Sustainability Suite of offerings is an integrated set of products designed to provide the most efficient use of energy resources, while at the same time ensuring occupant comfort and control.

IoT infrastructure		DaaS and software applications		
 <p><b>Lighting control</b></p> <p>Occupancy-based smart lighting controls</p> <p>Lighting control, energy management and diagnostics</p> <p><b>Up to 90% lighting energy savings</b></p>	 <p><b>HVAC integration</b></p> <p>Occupancy-based HVAC controls via BMS integration avoid unnecessary heating and cooling</p> <p><b>Up to 35% HVAC energy savings</b></p>	 <p><b>Occupancy data</b></p> <p>Detailed insight into space utilization and visual analysis with Space SaaS application</p> <p>API and 3rd party app integrations-ready</p> <p><b>Optimized real state CapEx</b></p>	 <p><b>Energy management</b></p> <p>Track energy savings</p> <p>Easily create and adjust lighting profiles</p> <p>Enable profile-based Automated Demand Response (ADR)</p> <p><b>Reduced OpEx via ADR incentives</b></p>	 <p><b>Environmental controls</b></p> <p>Mobile app-based occupant temperature, lightning, shading control and work order requests</p> <p>Balance aggressive sustainability goals with occupant comfort</p> <p><b>Delightful occupant experience</b></p>

## Intelligent lighting control

Dense sensor grid unlocks energy optimization and savings and the most comprehensive, granular data analysis. Configure and define zones and parameters via the system console, granting the ability to dynamically change configurations without the need to access hardware components.



### Occupancy sensing

Lighting automatically adjusts based on occupancy. When the room is vacant, lights turn off/dim, and turn on/dim when occupied.

### Daylight harvesting

Lighting automatically adjusts based on ambient light – turning on/off or dimming.

### Scheduling

Lighting scenes can automatically adjust based on the time-of-day. Astronomical clock calculates sunset/sunrise for the facility location and automatically adjust lighting.

### Automatic demand response (ADR)

ADR profiles allow for automatic load shedding when utility grid is overloaded. Energy rate discount and/or rebate incentive programs typically require this on-demand load-shedding functionality.

## Intelligent HVAC integration

### Occupancy sensing

Dynamically optimize heating, air conditioning and air flow based on occupancy.

### Configurable

Customize time schedules by building zones to accommodate balance of best occupant comfort and energy efficiency.



**We reduced our energy spend where the system was installed by 65-80%, while increasing the comfort and safety of building users.**



**KENNY SUTTON**

California State University Dominguez Hills

## Energy reporting

### Consumption reporting

- Energy usage in Watt-Hours
- Select floor, area, group, or fixture
- Energy data is stored with 5-minute resolution, enabling sophisticated analysis of energy usage patterns
- Plug-load control devices, both monitor and switch outlet load as per Title 24 code requirements
- Power Monitoring (Watts): instantaneous power consumption
- Energy Monitoring (Watt-Hours): culminative energy usage



### Savings reporting

Achieved energy saving split by occupancy, daylight harvesting, task-tuning, and the aggregate savings calculated.

### Energy APIs

Energy usage data for individual reporting needs and use cases and partnerships with 3rd party integrations to unlock new applications.

## DaaS and software information

From the sensor-based time series data collected, create custom analytics dashboards in with industry standard BI tool and derive value from existing third-party solutions such as IMWS and workplace experience applications. Leverage insights for multiple use cases to understand occupapatterns preferences and trends.

## Occupancy data: DaaS use cases

### High definition occupancy analytics

Examine heatmaps and understand traffic flows to evaluate space utilization and optimum use.

### Understand occupant density patterns

Understand over and under-utilized space to make space reconfiguration decisions.

### Understand traffic flow pathways

Examine how occupants are moving through spaces to make more refined business decisions on space use. For example, optimize sanitation routines based on occupancy history.

### Ensure physical safety and security

Uncover emergency situations and alert security when there is unexpected motion in a closed or secured area.



## Third-party app-ready APIs

### Indoor environmental air quality

Integration for 3rd party air sensors (e.g., CO2, VOC, PM) and 3rd party software or BMS integrations. Applications range from building operations to employee health or sending of alert notifications.

### Space availability

Improved Reservation App Experience - Auto check-in and auto-cancel meeting no-show, eliminate recurring zombie meetings.

### Technology driven safe air quality

Safe, clean air has never been more critical. The CDC and EPA recommend new standards for building health and safety including building ventilation, filtration and monitoring to reduce the spread of disease and lower the risk of exposure and keep employees safe.

Enlighted's sensor-based solution provides integration with air quality sensors to assesses your indoor air quality and provides an actionable index score and notifications to proactively manage indoor air threats.

With insights on critical air quality parameters, proper ventilation can be ensured to reduce disease transmission and prioritize treatment for high traffic areas like cafes.

## Energy management

Web-based user interface for lighting system management, IoT device management, and optimizing building system performance. Manage configures and lighting behavior by adjusting software profiles while retaining lighting data for up to three years.

## Track energy savings

### Simplified lighting control management

Generates reports on carbon reduction, energy, and financial savings.

### Power metering

By deploying various control strategies at an individual fixture level, direct power metering provides data for comprehensive savings analysis.

### Comprehensive insight into building system performance

Measure and identify under-utilized spaces by gaining insight into building usage patterns.

## Automatic demand response (ADR) and demand response (DR)

### Set ADR profiles

Create energy savings profiles to ensure ADR responsiveness without sacrificing occupant comfort and productivity.

### Optimize operating costs

Comply with energy efficiency and more rapidly achieve sustainability goals.



Through the combined hardware and software, we are able to collectively address HVAC, demand response and lighting optimization and get the best rebates available.



**DAVE TARLTON**

Vice President, Tarlton Properties

## Security, privacy, and flexibility-first cloud application

### Standards-based communications protocols

Industry-standard communication protocols provide robust and mature capabilities. REST-based APIs support GET, POST requests, and XML, JSON responses.

### Data security

AES 128-bit encryption for wireless data transmission and TLS encryption for TCP/IP along with the use of a 2048-bit certificate and SHA-256 Cipher enable the highest standards of Corporate Data Security requirements.

### Data privacy

Our solutions collect and store occupancy data captured by our sensors. The sensors cannot directly reference, distinguish, or identify any natural person. User details such as login, logout events, IP address, first name, last name, and application pages accessed by the user along with the organization's name, occupancy data, and floor plans are all stored securely.

### Flexible deployment

EMC is cloud-hosted, reducing the burden on your IT organization and allowing globally distributed sites to be managed from a single location.

## Occupant environmental control

Balance aggressive sustainability goals with occupant comfort—and put environmental controls in their hands with an intuitive mobile app.

## Improve occupant experience - comfort and control

### Mobile touchless temperature control

On-demand control to warm or cool a space. Machine learning identifies personal temperature preferences and proactively applies them over time. See warm and cool areas in real-time via floorplans with heatmaps.

### Mobile touchless lighting control

Touchless control over a workspace’s lighting via an intuitive mobile app. Control an area’s brightness and toggle between various types of lighting.

### Mobile touchless shading control

Digital control to raise or lower an area’s window shading.



## Administration and analytics

### BMS connection

The Gateway device connects to the BMS via BACnet/IP network and to the cloud through an outbound internet connection.

### Easy floor map configuration

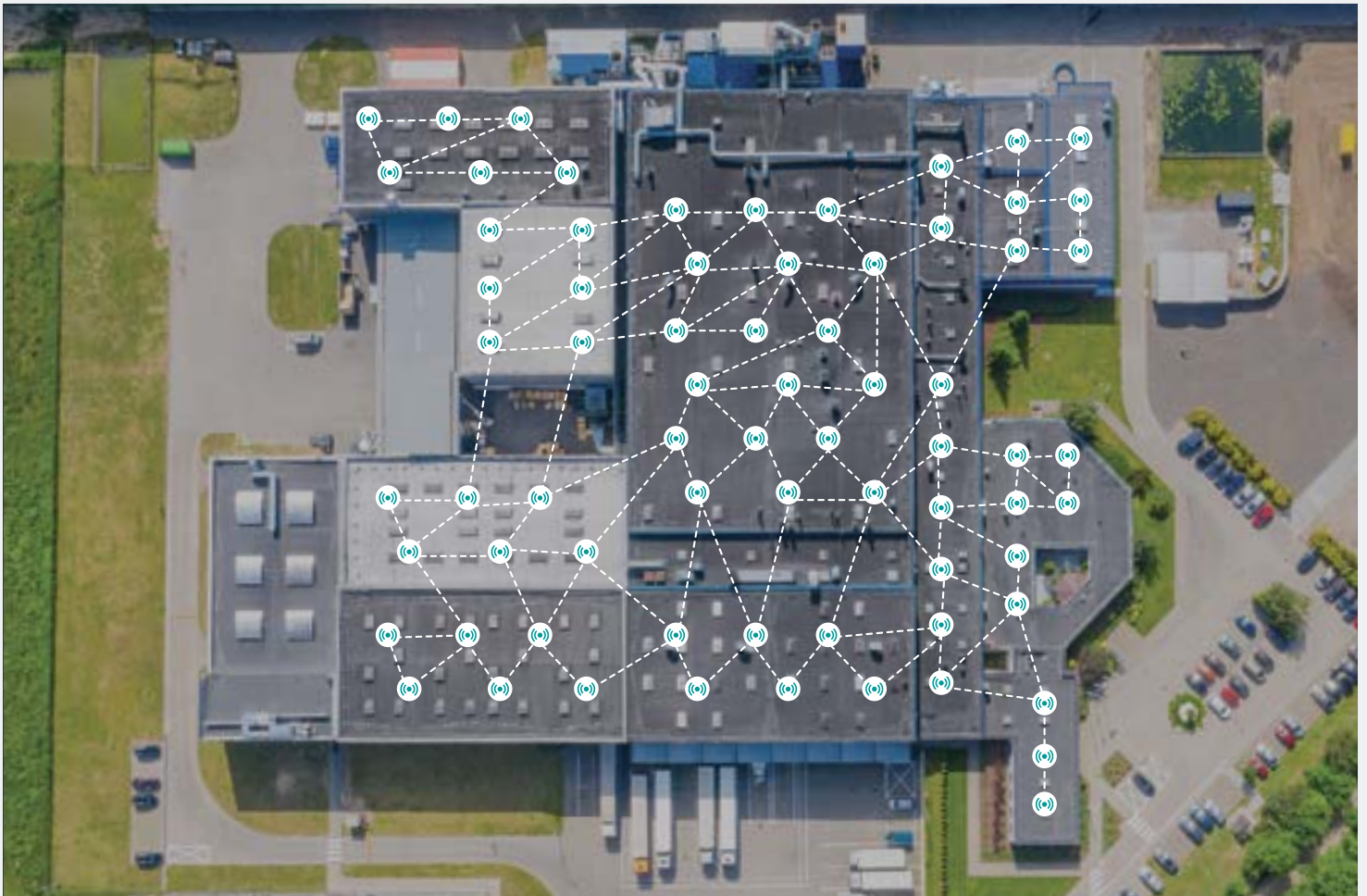
- Import and digitize floor maps to configure the workspace for environmental controls
- Designate and modify specific zones for employee control
- Provide employees with intuitive, location-specific control over their workspaces

## Actionable insights and fewer service calls

- Actionable Insights and Fewer Service Calls
- Understand employee temperature preferences and better control energy use
- Significantly reduce the hot/cold calls to the facilities team
- For zones with limited activity, widen HVAC deadbands to lower operating costs
- Save up to 35% of HVAC energy costs by reducing over-conditioning
- Increase lighting efficiency
- Insights captures and visualizes user actions, providing interactive and customizable analytics on environmental control trends and KPIs
- Ingest data into preferred business intelligence tools via Insights Access API
- Understand employee usage and identify areas to optimize default environmental settings

## Proven experience for your sustainability journey

With enterprise clients reaping quantified energy savings over years of service, Enlighted is well positioned to future proof your buildings and contribute significantly to your ESG goals. Begin today with a technical and financial analysis of your environment to understand how quickly you can transform your buildings into regenerative places.



Building Robotics, Inc.,  
a **Siemens Company**

### Turn everyday spaces into extraordinary places

Wherever space, people and work meet, Enlighted empowers organizations with the technology to transform real estate spaces into regenerative places that fuel positive impact for people, portfolio, and our planet.

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