Reduce emissions and energy costs with AI-powered HVAC

Building operations account for **27%** of the world's total energy sector emissions. HVAC systems in buildings are responsible for **40%** of this energy consumption, yet **30%** is wasted due to inefficient operations.

BrainBox AI's AI-driven, cloud-based HVAC optimization solution connects to your existing HVAC systems and autonomously sends real time control commands to minimize HVAC-related emissions and energy consumption.

BrainBox AI Value Creation:

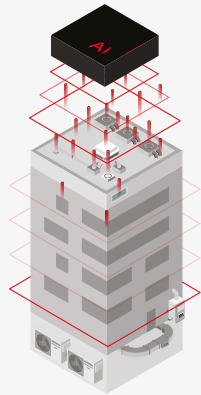|	
Up to 40% reduction in HVAC carbon emissions ↓ **-40%**	• Accelerate reduction in scope 1 & 2 emissions • Meet or exceed your ESG targets • Access and track your unique emissions data • Comply with energy efficiency and emissions limits
Up to 25% reduction in HVAC energy costs ↓ **-25%**	• Lower your HVAC bills & operating costs • Increase net operating income (NOI) • Improve your building's EUI (e.g. Energy Star™ score)
Up to 60% improvement in occupant's thermal comfort ↑ **60%**	• Improve air quality with occupant and pollution level-based ventilation adjustments • Decrease hot and cold calls • Reduce temperature swings
Up to 50% extension of equipment service life ↑ **50%**	• Reduce equipment runtime • Increase ROI on existing assets and defer CAPEX replacement

Global client ambassadors

CAMMEBYS

Landsec

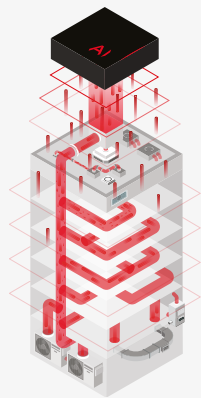GWL REALTY ADVISORS

SleepCountry

Holiday Inn

SAIL

BRAINBOX AI

How it works

MAPPING AND LEARNING

- Connects to your HVAC system through your existing networked control system

- Maps your system's point names using industry-standard Haystack tagging and normalises the data set

- Runs virtual tests to choose the algorithms that are right for your building based on its unique thermal behavior

REAL-TIME OPTIMIZING

- External information such as current and forecasted weather as well as utility tariff structures are fed to our AI engine

- Predicts the future state of your building with 99.6% accuracy to guide decision-making

- Writes back to individual pieces of HVAC equipment, making necessary adjustments every 5 minutes

CONTINUOUSLY IMPROVING

- Observes and learns how the building evolves with changing climate patterns, while also adapting to upgrades or changes in HVAC equipment

- 24/7 monitoring service keeps track of key alarms and potential issues ensuring optimized HVAC equipment usage

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GWL REALTY ADVISORS

"As a leading real estate advisor, we're focused on evolving our sustainability platform to meet the demand for smarter, climate-resilient buildings for our tenants. We've seen great results in our pilot projects with BrainBox AI and are evaluating other assets where we can implement this technology."

Glenn Way | Executive VP & CFO, GWL Realty Advisors

Landsec

"We've partnered up with BrainBox AI to trial the introduction of Artificial Intelligence within 100 Victoria Street to help our drive toward net zero and improve comfort for the people within our buildings."

Jennie Colville | Head Of Sustainability, Landsec

BRAINBOX AI.