
EcoEdge AI®
windmason
BREATHE THE FINEST
ECOEDGE AI
Decarbonizing the Planet
One Building at a Time
UAE | Oman | Saudi Arabia | Bahrain

WHAT WE DO

We make HVAC systems green, sustainable & highly effective

ACTIVE DEPLOYMENTS

FIVE PALM JUMEIRAH DUBAI

الحبتور ALHABTOOR

Radisson RED

مستشفى الرياض Riyadh Hospital

قباء مسجد

park inn by Radisson DUBAI MOTOR CITY

PARK REGIS KRIS KIN HOTEL • DUBAI

HERIOT WATT UNIVERSITY

Ferrari WORLD Abu Dhabi

PLANNED DEPLOYMENTS

Saudi German Hospital

Radisson BLU

DELTA HOTELS MARRIOTT JUMEIRAH BEACH DUBAI

RAFAL TOWER

JBC MANAGEMENT DMCC جيه بي سي مانجمنت م.د.م.س

TRYP BY WYNDHAM

MARRIOTT

THE RITZ-CARLTON®

Rotana

DIFC

دلّه الصحيّة Dallah Health

SHIFT TOWARDS DECARBONIZATION

Commitments to net-zero carbon dioxide (CO2) or GHG emissions targets cover 88% of countries' emissions:

- UAE – 40% reduction in carbon emissions by 2030
- KSA – Reduction of 278 mtpa CO2E emissions by 2030
- Qatar - 25% reduction in GHG emissions by 2030
- Oman - 21% reduction in GHG emissions by 2030
- Bahrain – 30% reduction in CO2E emissions by 2035
- Kuwait – 7.4% reduction in CO2E emissions by 2035

THE WAY FORWARD

Enhancing energy efficiency by employing superior technology:

ANNUAL INVESTMENT IN ENERGY EFFICIENT BUILDINGS FROM 2017 TO 2022, AND NET ZERO FORECAST FROM 2026 TO 2030, IN USD BILLION, WORLDWIDE

Our way

Employ ML to learn about usage patterns, feed key data through external sources and enable AI to make data centric decisions to achieve HVAC efficiency

Our users

Malls, hospitals, airports, factories, hotels, and residential, industrial and commercial buildings around the world

↓ Energy bills

↓ Carbon footprint

↑ Comfot

↓ Operational problems

OUR TECHNOLOGY

World's Smallest AI Supercomputer

Jetson Xavier NX

Plug & Play

USB, Ethernet, HDMI, DIO, COM/CANBUS

Energy Efficient

Utilizes EDGE computing which produces 74.46 Kg CO2e per year

Globally Certified

CE/FCC Class A & SOC 2 certifications

Interoperable

BACNet, Serial communication via RS485/RS232

Autonomous

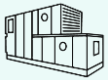
Zone conditions, setpoints, future predictions, energy savings

OUR SOLUTION

Data Acquisition and Pattern Learning for HVAC through BAS

Chillers

CHW In/Out
Ambient Temperature
Power Consumption
Cooling Load Demand



AHUs

Zone Temperature
Setpoint Temperature
Return Air Temperature
CHW In/Out
Valve Position
Occupancy
Pressure Setpoint
Fan VFD Hz

FCUs

Zone Temperature
Setpoint Temperature
Return Air Temperature
CHW In/Out
Valve Position
Occupancy

VAVs

Zone Temperature
Setpoint Temperature
Damper Position
Occupancy

CAVs

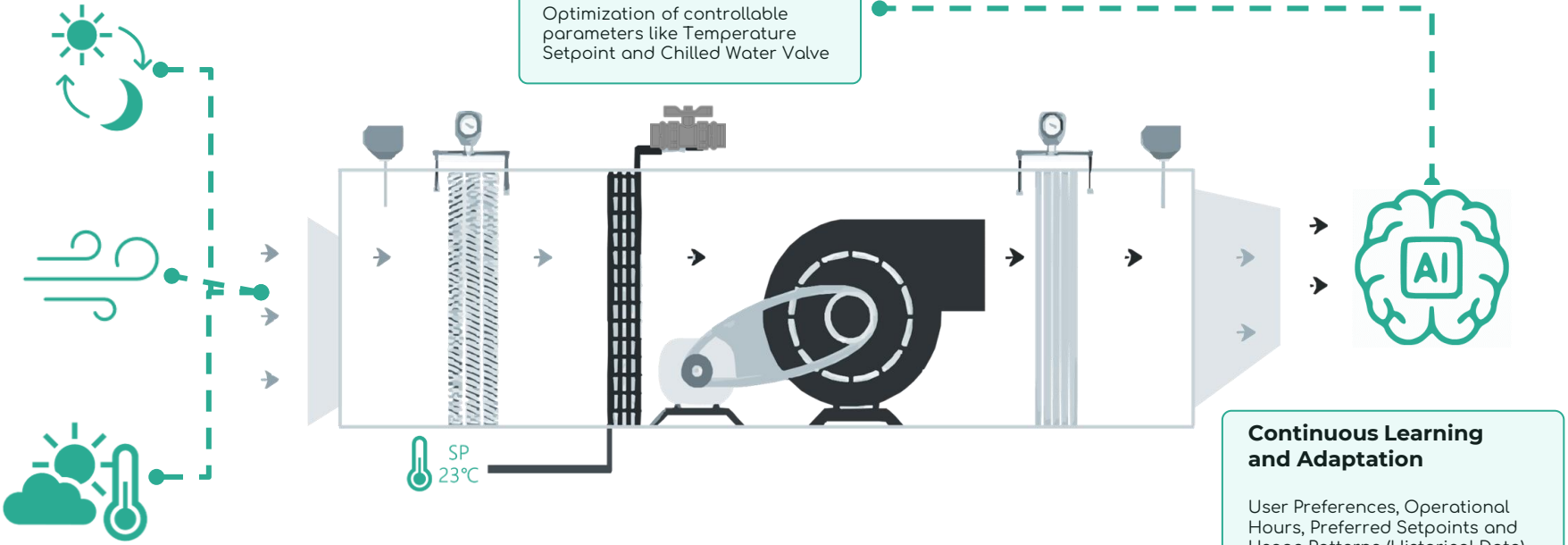
Zone Temperature
Setpoint Temperature

AI-based Future Predictions and Optimization of HVAC

SAVINGS OPPORTUNITY

Parameters Optimization

Optimization of controllable parameters like Temperature Setpoint and Chilled Water Valve



Continuous Learning and Adaptation

User Preferences, Operational Hours, Preferred Setpoints and Usage Patterns (Historical Data)

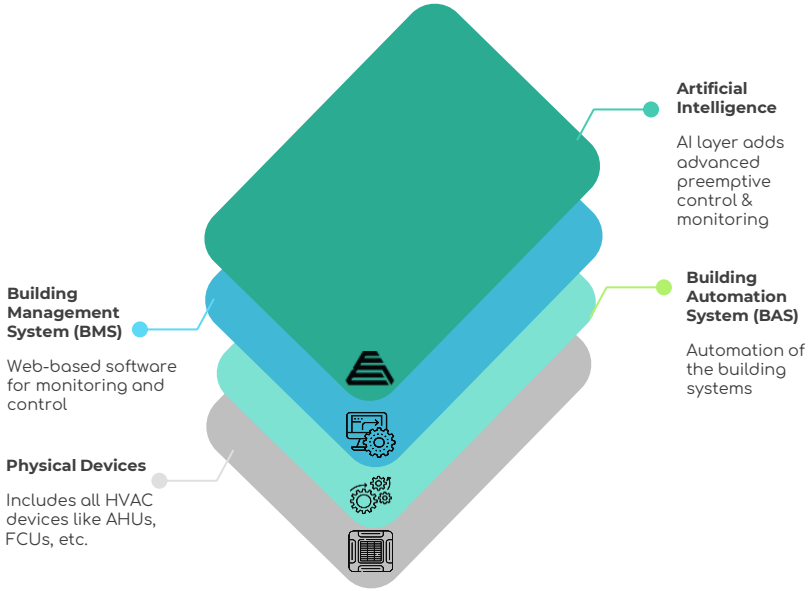
Dynamic Parameters

Time of Day, Return Air Temperature and Outside Weather

VALUE PROPOSITION

Reactive vs. Proactive

Feature	Conventional BMS (Reactive Approach)	EcoEdge AI (Proactive Approach)
Data Collection	✗ Limited	✓ Continuous
Data Analysis	✗ Minimal analysis	✓ AI-based predictions
Autonomous	✗ Manual adjustments	✓ AI-based actions
Energy Usage	✗ Energy wastage	✓ Dynamic optimization
System Learning	✗ Fixed rules-based	✓ Continuous learning and adaptation
Occupant Comfort	✗ Manual adjustments	✓ Auto-adjustments
Energy Efficiency	✗ Decreases with time	✓ Improves with time
Carbon Emissions Reduction	✗ No active focus	✓ Reduces energy waste and emissions



BMS Operation: 01/Jan to 08/Jan & 15/Jan to 22/Jan

EEAI Operation: 08/Jan to 15/Jan & 22/Jan to 29/Jan

CASE STUDY: 01

SITE OVERVIEW

Shaukat Khanum Memorial Cancer Hospital Jobs

Water Cooled Chiller

1,800 TR

FCUs

Not Available on BMS

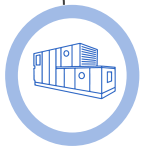
Total = ~520 TR

AHUs & FAHUs

Available on BMS

Total = 16 Units | ~1279 TR

Included in POC = 01 Unit | ~ 30 TR



Site Name	Air-side Equipment under Consideration	Total Tonnage (TR)	Tonnage under EcoEdge AI control (TR)	Operational Hours (hr)
SKMCH PESHAWAR	01	1,800	30 **(1.66%)**	24

POC RESULTS OVERALL | SKMCH PESHAWAR

BMS Operation: 01/Jan to 08/Jan & 15/Jan to 22/Jan

EEAI Operation: 08/Jan to 15/Jan & 22/Jan to 29/Jan

26.95 %

Energy Savings Per Week
(1.7% of the facility under POC)

30 TR

Tonnage Under Consideration

18,974 PKR

Energy Savings

358 kWh

Electrical Energy Reduction

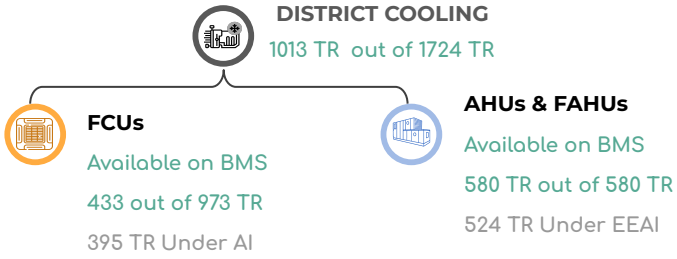
190 kg

CO_2 Emissions Reduction

Shaukat Khanum Memorial Cancer Hospital Jobs

CASE STUDY: 02

SITE INFORMATION



Site Name	Chilled Water Source	Air Side Equipment Controlled	Parameters Controlled
Radisson Red	1724 TR District Cooling	07 AHUs & FAHUs 172 FCUs ~919 TR (53.3%)	Valve Control

This report highlights the energy conservation outcomes delivered through the deployment of EcoEdge AI at Radisson RED. The analysis covers building operational behavior and annual energy performance for 2025, with specific emphasis on the AI-optimized period from May to December 2025.

KEY DETAILS

- A total of **7 AHUs & FAHUs and 179 FCUs** are enabled under the AI mode.
- The readings from the BTU Meter is the parameter used for comparison. The monthly consumption is compared against the monthly budgeted cost for each month.

SUMMARY | RADISSON RED

9.12 %

Overall Energy Savings from Budgeted Cost
(For 53.3% Cooling Capacity)

16.08 %

Reduction in Consumption per Occupancy

65,725 AED

Overall Energy Savings from Budgeted Cost
[May to December 2025]

919 (~53.3%)

Tonnage Under Consideration
(For Equipment under POC)

549,265 kWh

Energy Consumption Reduced

48.47 MT

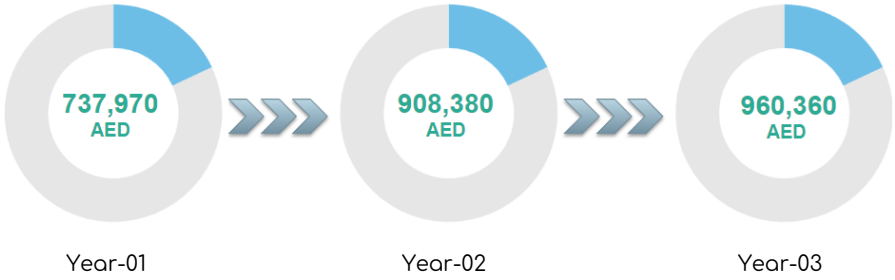
CO_2 Emissions Reduction

CASE STUDY

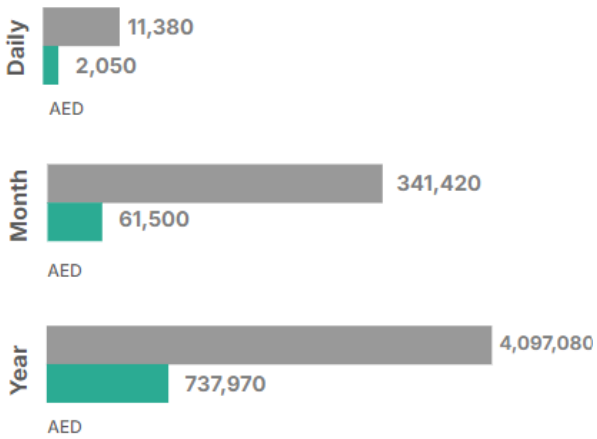
Luxury Hotel

	Reduction in Energy Consumption	Annual Reduction in CO2 Emissions
Year-01	18.01%	622.72 MT
Year-02	22.17%	766.18 MT

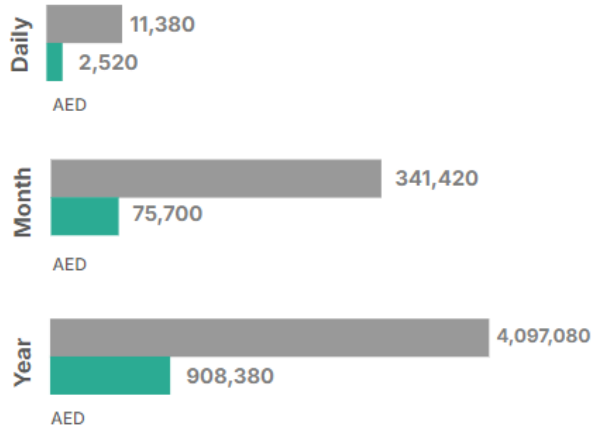
Projected Yearly Savings Potential



Projected Savings Potential for Year-01



Projected Savings Potential for Year-02

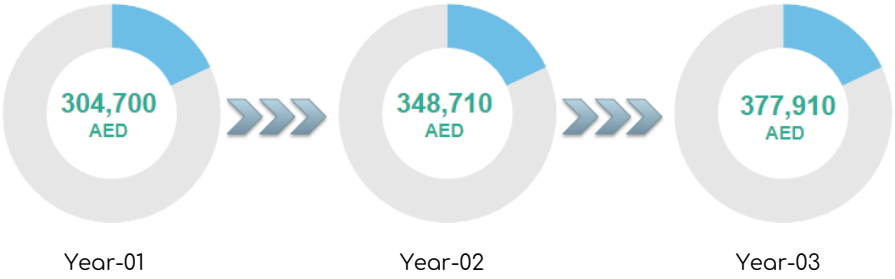


CASE STUDY

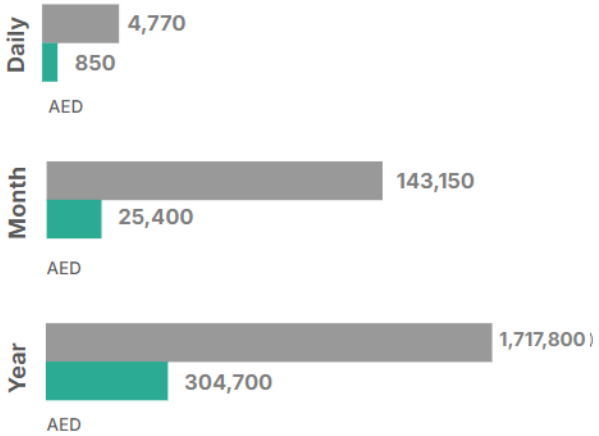
Residential Tower

	Reduction in Energy Consumption	Annual Reduction in CO2 Emissions
Year-01	17.74%	189.00 MT
Year-02	20.30%	194.10 MT

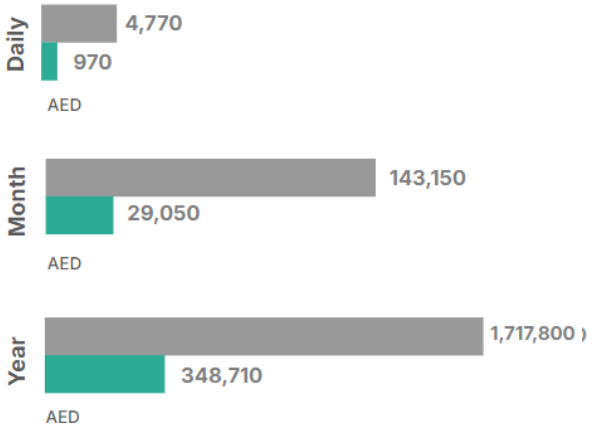
Projected Yearly Savings Potential



Projected Savings Potential for Year-01



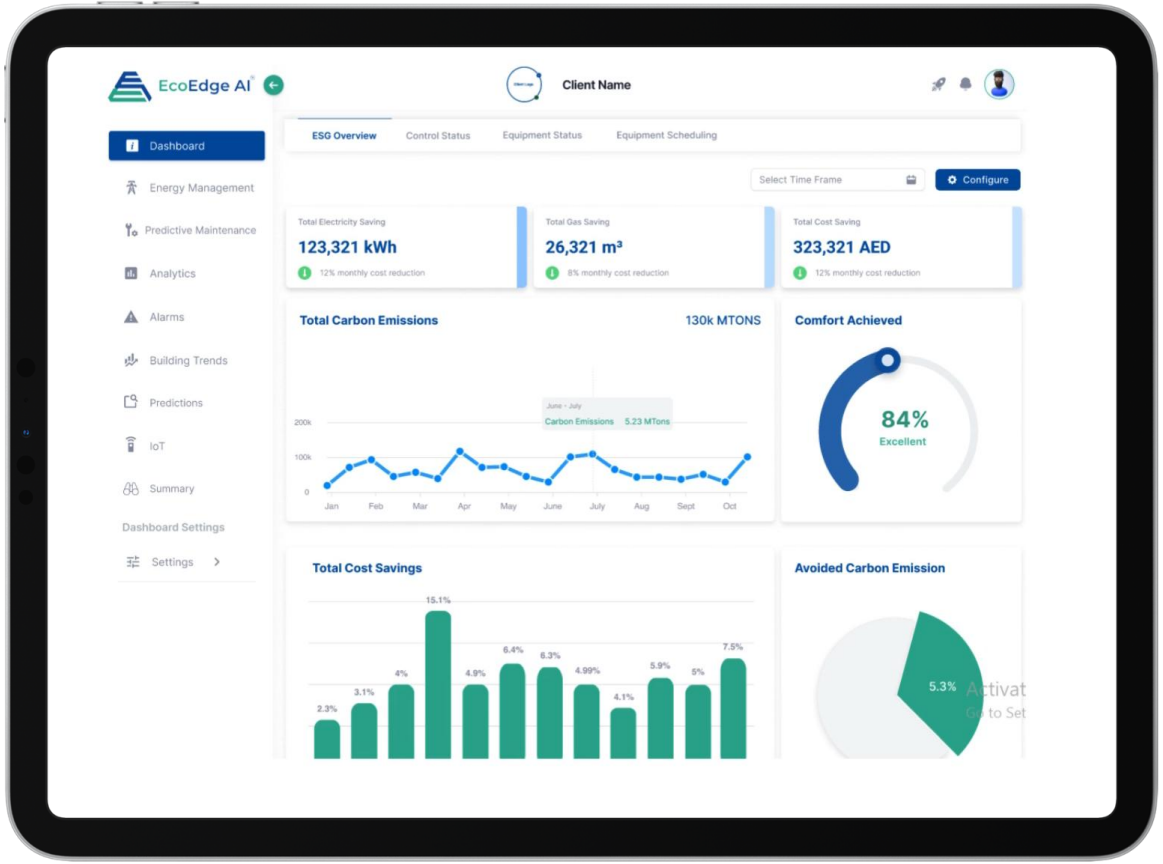
Projected Savings Potential for Year-02



SOLUTION

User-Friendly Dashboard

- Increase in energy efficiency reporting
- Real time monitoring and data-driven control
- Fault detection and diagnosis



DELIVERY

Our tech can be integrated with HVACs within 7 days

Assessment

Our team analyzes the HVAC site then lists specs and details

Implementation

EcoEdge AI integrates with the HVAC system in just 3-5 days

Findings

Findings and possible energy consumption and reduction of carbon shared with building manager

Proposal

Cost proposal is shared with the building owner

SERVICE

Flexible Payment Models

Pay Once

One time deployment cost + annual maintenance

(Break even in 16-18 months)

(Includes tech updates, troubleshooting, monthly visits)

Pay Monthly

One time deployment cost + 50% from saving

(Break even in just 4-6 months)

(Includes tech updates, troubleshooting, monthly visits)

SPEAKING EVENTS

EcoEdge AI on the Global Stage

AI-Driven HVAC Optimization for Sustainable Urban Cities

LEAP | Smart Cities

Investing in the Future, the Energy Market, Vision, Opportunity, and Technology

LEAP | Future Energy

AI-Powered HVAC Efficiency – Startup City Exhibition Hall

BIG 5 Global

AI for Sustainability: Application in the Built Environment

Dubai AI & Web3 Festival

Clean Tech Forum

New Energy Nexus

AI & HVAC Energy Efficiency

AI 101 Strategic Workshop

SDG-FOCUSED

Our Contribution to the Planet


PAVE THE WAY FOR A GREENER FUTURE
5 Years, 5000 Buildings
3.2 Million tons of CO_2 emissions avoided

Key Projects

Project:

Riyadh Hospital
Eco Edge AI Deployment for HVAC Automation & Energy Saving.

Project:

Masjid Quba Assosiate with MDA
Eco Edge AI Implementation for Chiller Plant Optimisation & Energy Saving.

Key Projects

Project:

Ferrari world

Eco Edge AI Deployment for Energy Saving.

Project:

Radisson RED

Eco Edge AI Deployment for Energy Saving.

Key Projects

Project:

Palm Jumeirah

Eco Edge AI Deployment for Energy Saving.

Project:

Park Inn by Radisson

Eco Edge AI Deployment for Energy Saving.

Key Projects

Project:

Park Regis

Eco Edge AI Deployment for Energy Saving.

Project:

Al Habtoor

Eco Edge AI Deployment for Energy Saving.

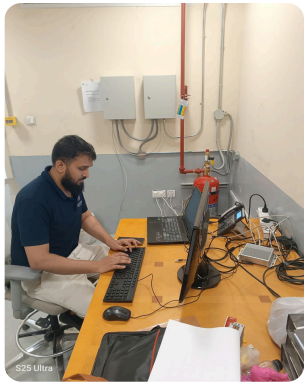
On-Site Work Activities

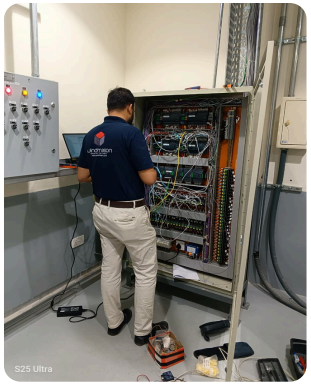
BMS Solutions

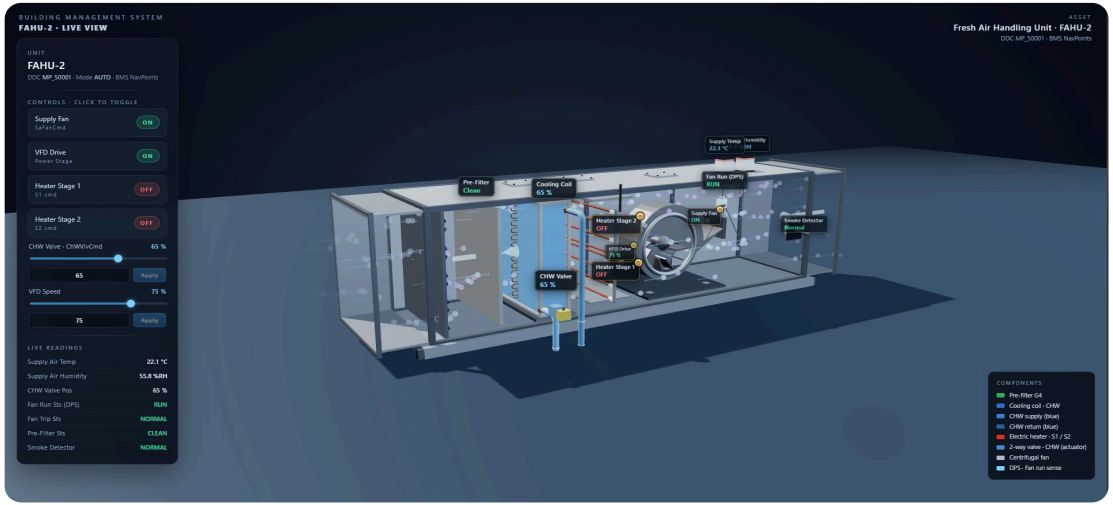
Providing advanced BMS solutions focused on smart control, monitoring, and energy-saving systems for efficient building operations.

Energy Cost Reduction

Reduces energy consumption and operating costs without affecting performance.







Be Part of the Change

Start Decarbonizing with Us

windmason

BREATHE THE FINEST

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