

The story of a **Fortune 500** insurance company and **384 metric tons CO₂e** reduction

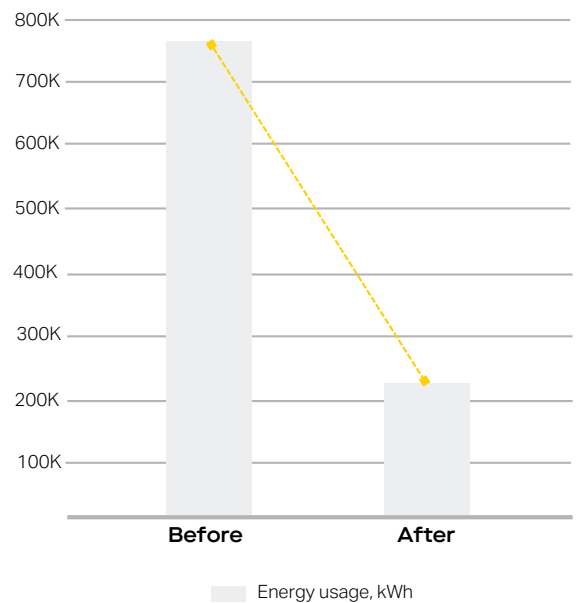
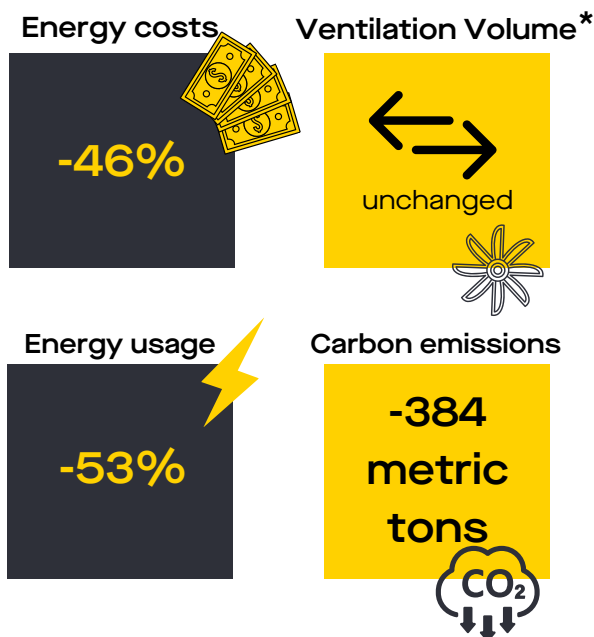
BACKGROUND

In 2022, Rensair partnered with a Fortune 500 insurance company that had set its sights on achieving Net Zero by 2050 globally. The company took a comprehensive approach to reach Net Zero, embracing innovation and investing in cutting-edge technology. In their pursuit of innovative solutions, they teamed up with Rensair.

Rensair offered the company its ground breaking Smart Demand Controlled Ventilation (SDCV) solution. This innovation combines Rensair air purification with existing mechanical ventilation through the Rensair Cloud IoT platform. The SDCV system ensures excellent Indoor Air Quality (IAQ) while also significantly reducing the energy consumption and carbon emissions of the company's buildings.

After installing the SDCV system, data was collected and analyzed, confirming that the indoor air quality remained at excellent levels while achieving substantial energy savings. This reduction in energy consumption also led to a significant decrease in CO₂ emissions, contributing to the company's overall efforts to combat climate change and achieve their Net Zero goals.

SDCV RESULTS



The energy savings translated to 384 MT of CO₂e using the US EPA Greenhouse Gas Equivalencies calculator, equivalent to:

GHG emissions from



75 homes' electricity
use for one year



984,403 miles driven by a
gasoline-powered vehicle

Carbon sequestered by



6,350 Tree seedlings grown
for 10 years



458 acres of forests
in one year

* During the study the combined air volume from the mechanical ventilation and rensair air purification never fell below 10l/s/p

IMPLEMENTATION

Rensair SDCV solution is implemented in three simple phases:

CONSULTATION

Analyzing the building and operations to generate initial projections for energy and carbon reductions

- Current building ventilation levels
- Occupancy and use
- Utility consumption

ESTABLISH BASELINE

Measuring current Indoor Air Quality (IAQ) to establish baseline

- Measure Particulate Matter (PM), Volatile Organic Compounds (VOCs), CO2 and other IAQ metrics using Rensair Cloud
- Confirm current energy consumption levels (electricity/gas meter readings)
- Fine-tune energy and carbon reduction projections

GO-LIVE

Implementing the Rensair SDCV solution (Hardware + Rensair Cloud IoT) leading to:

- Immediate energy savings
- Decarbonizing the building
- Creating a healthier workplace

CONCLUSION

The Fortune 500 insurance company took a leap forward in their Net Zero path, enabled by Rensair's SDCV solution.

- The energy savings were inline with the projections made in the consultation phase.
- The energy costs decreased by **46%** .
- A significant **384 metric tons** of CO₂e from Scope 1 & 2 GHG was avoided.
- **Excellent Indoor Air Quality.**



Initially I was sceptical, however, after Rensair explained the details of SDCV and how it works, I was bought in and happily engaged in a pilot which delivered the projected savings.

Rensair delivered a professional service throughout, they couldn't have done anything better, everything promised was achieved.



-- **Head of Engineering, EMEA**
(Reference available on request)

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