State of our buildings

Problem for all buildings

Our Buildings are DUMB

WELLBEING & HEALTH

- Poor IAQ is second biggest health risk in India
- 6X increase in deaths in India due to air pollution
- 48% in India experience breathing difficulty due to air quality
- 85% higher sick leave in poor indoor environments

PERSONAL COMFORT

- 61% of office workers not comfortable in the office
- 75% of office workers are unhappy with indoor temperature
- 38% have a headache every month in offices

PERFORMANCE & PRODUCTIVITY

- 14% lower productivity in badly ventilated and lit offices
- 10% lower performance in schools with poor air quality
- 44% more mistakes in too cold offices
- 32% savings in energy bills by management of ventilation

* November 16 opinion poll on air pollution in Patna conducted by CEED

Problem for all buildings

Our Buildings are DUMB

“How do we make commercial spaces more productive?”

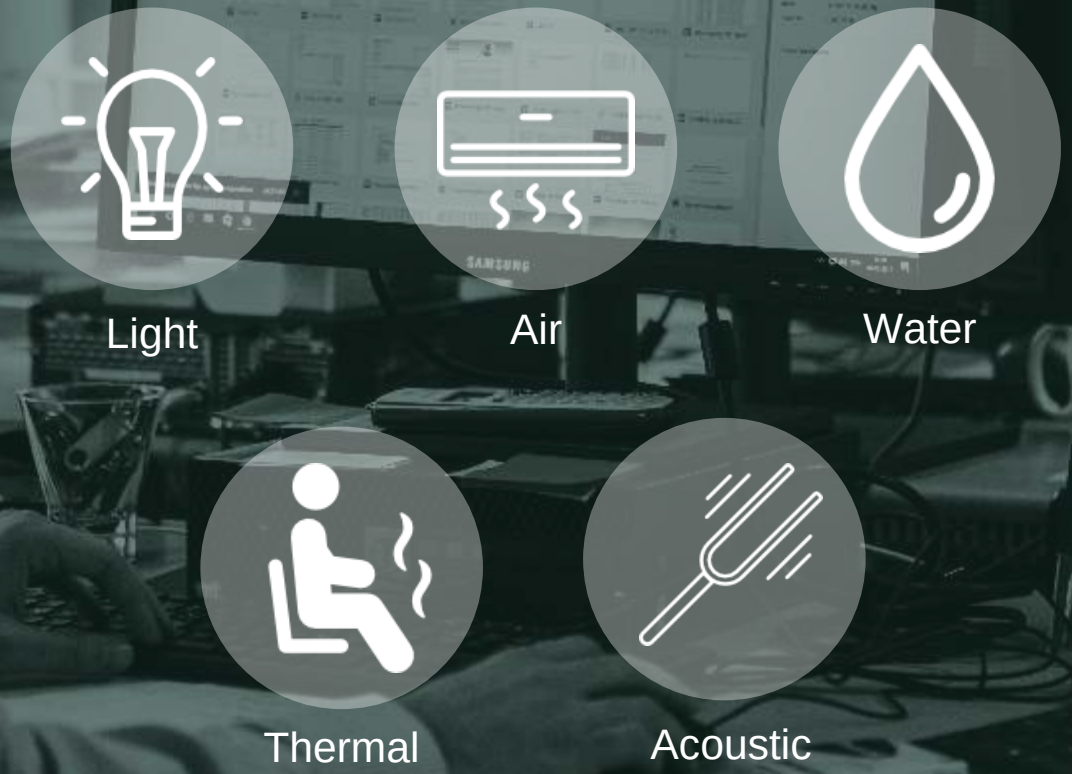
#1

#2

“How do we reduce the OpEx of buildings?”

Solution? Use the Right Data

‘Solve for IEQ and you solve for energy’



Active Buildings

AI sensors for urban asia buildings

Architects/ Consultants

GLOBAL EVOLUTIONARY ENERGY DESIGN

teri

CONSERVE
delivering Performance

ecofirst
sustainable by design

GREENING INDIA

equinox LABS

GBCI

Property Managers

Godrej

JLL

SciTech

COMPASS GROUP

bam

Data to buildings operations

Improve the air quality and reduce air related sickness significantly with our plug and play sensors

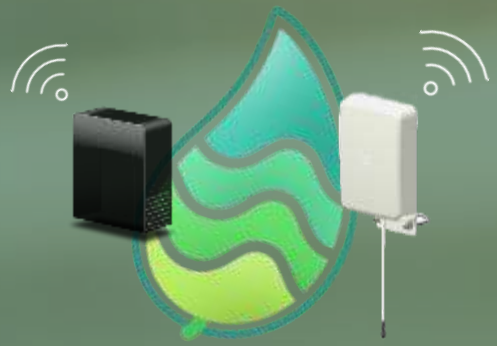
Predict mould growth zones in building and alert house keeping teams

Recommendations to run your building infra at optimal performance and save upto 15%

Get a screen with a dynamic LEED Plaque that also alerts your housekeeping team for equipment maintainence

BMS Integration

Screens



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Manual alerts

Ventilation Automation

Active Buildings

IEQ analytics reports

- Detailed IEQ assessment reports
- Identifies key IEQ problems and potential causes & solutions
- Benchmarked to leading standards, incl. ISHRAE, ASHRAE, Well, BREEAM, LEED.

Real-time dashboards & displays

- Real-time tracking & monitoring
- Cloud/web-based, on any device
- Industry/client-specific KPIs and UIs
- Real-time alerts & early-warnings
- Use cases: FM, BMS, public displays

Developed with input and feedback from leading smart and green building architects and specialists in India, UK and Singapore

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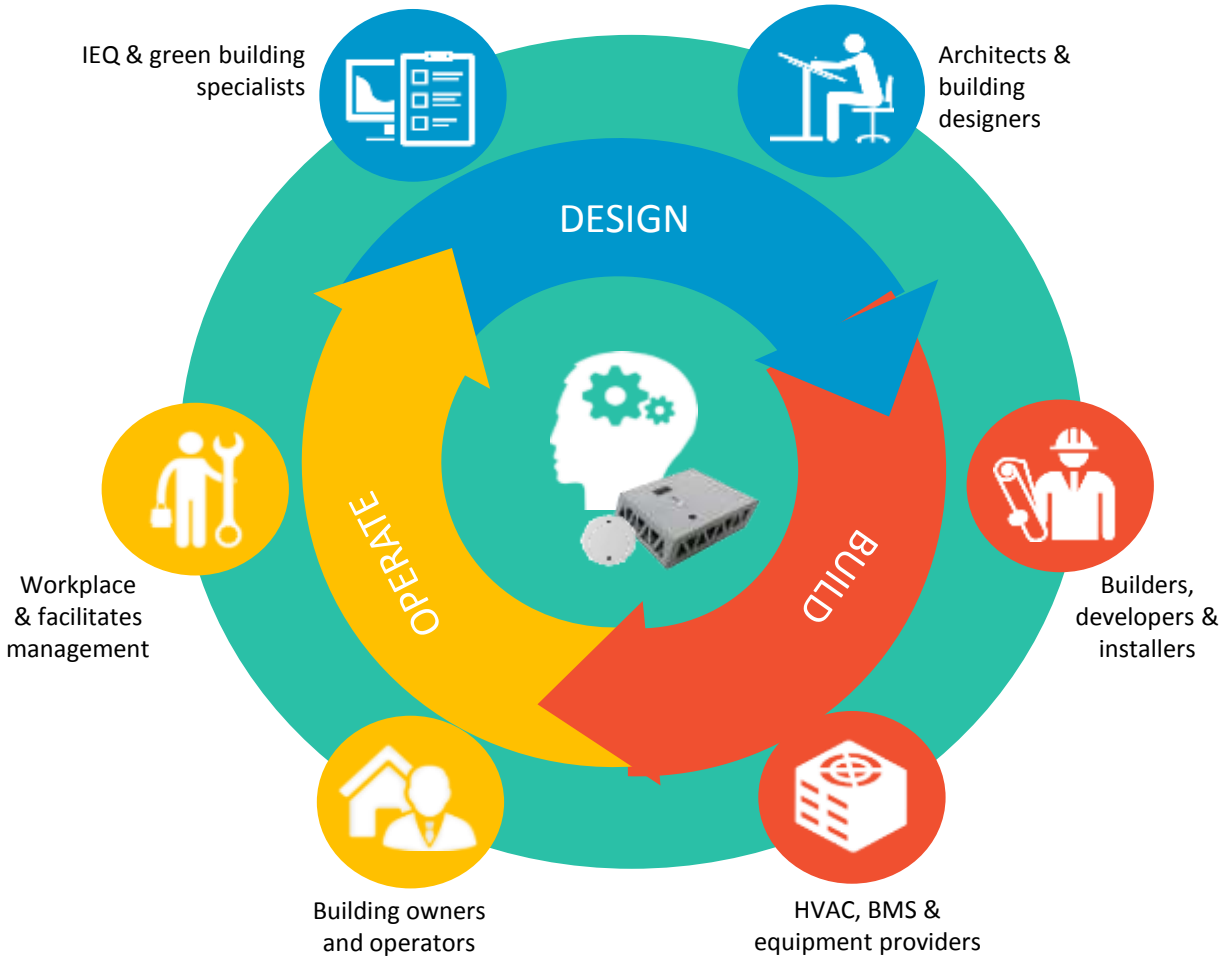


An ecosystem of partners
Partnering with existing leading specialist service providers across the building sector for market access and product development.

New smart building services
Work with partners to develop and offer new low-cost smart building services by combining their traditional services with our IoT platform

Capture cross-sector synergies Create new cross-sector solutions and integration enabled by our common data-driven cloud platform and shared solutions

Testimonials

“We are impressed with their ability to understand very complex requirements and deliver solutions within time and budget”

RAJAN RAWAL
Centre for Advanced Research in Building Science and Energy, CEPT University, Ahmedabad

“We would like to utilize Active Buildings in all of our projects.”

HARISH R
Senior Engineer, Conserve Consultants

“A game-changing device”

ASHUTOSH RANJAN
COO, Smart Air Filters

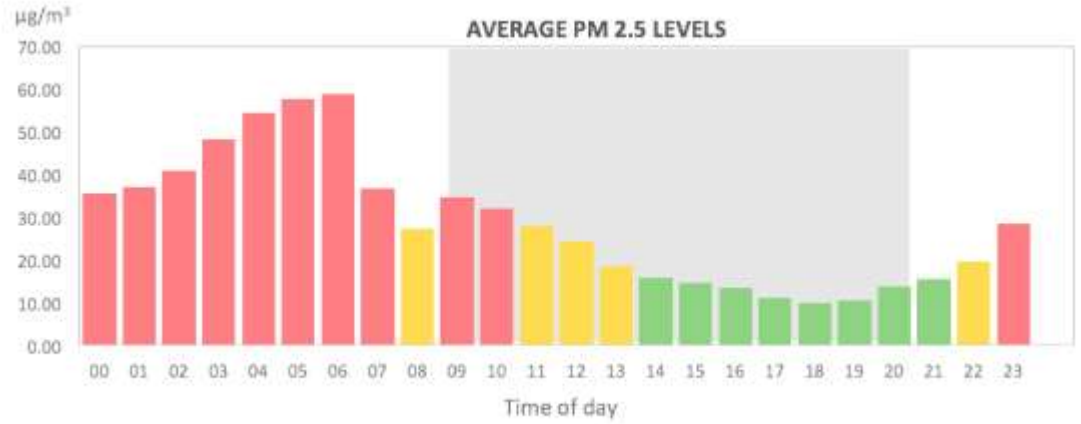
“It has worked flawlessly. The data from the sensors has enabled us to further better our services to our clients. We look forward to integrate the sensors in our future projects.”

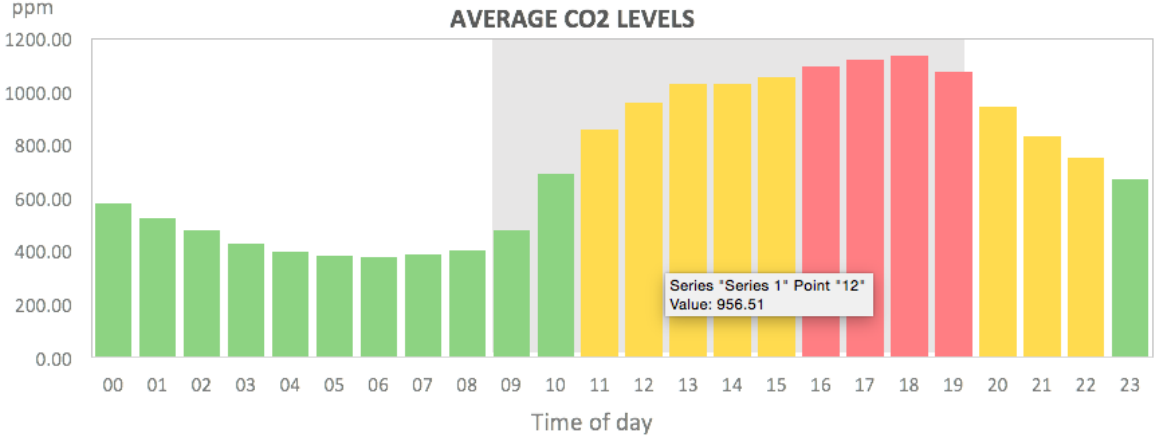
ADHISHH
Owner, Global Evolutionary Energy Design (GEED

Active Buildings

Case studies

Case study: Commercial building in Gurgaon





Noted behaviour:

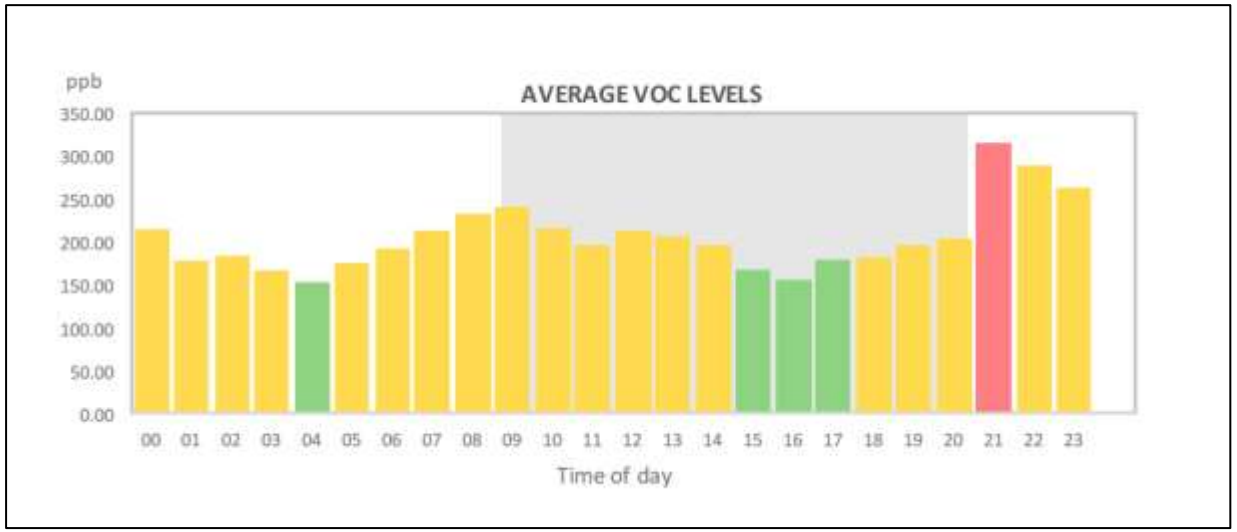
1. Non occupancy periods show high amounts of particulate pollutants

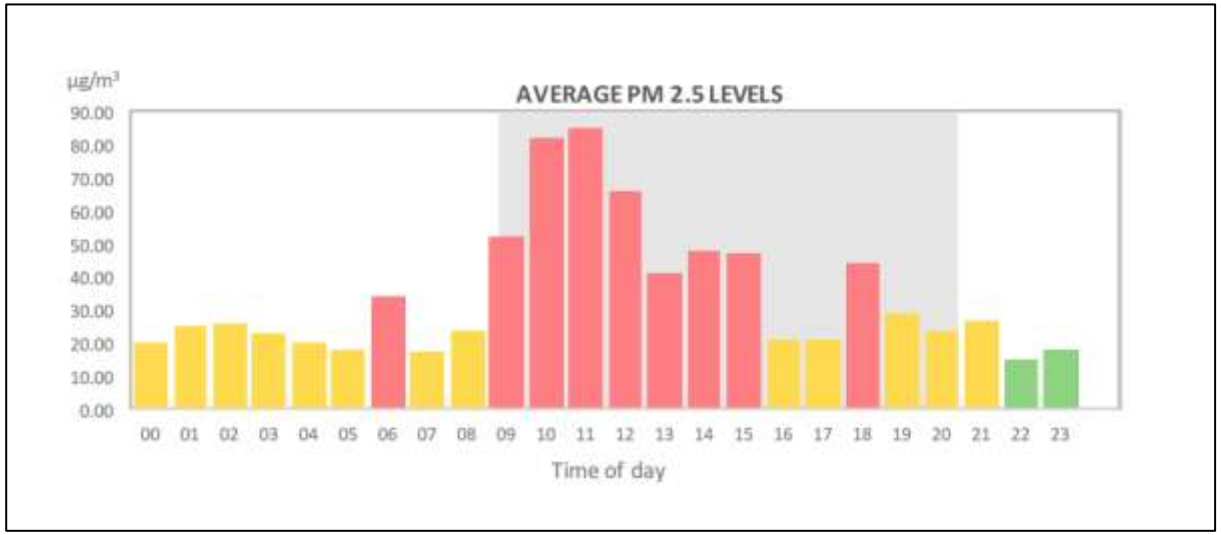
2. Occupancy periods show marginally high CO2 levels with good leakage in non occupancy periods

Active Buildings

Case studies

Case study: 5 star hotel laundry room in London





Noted behaviour:

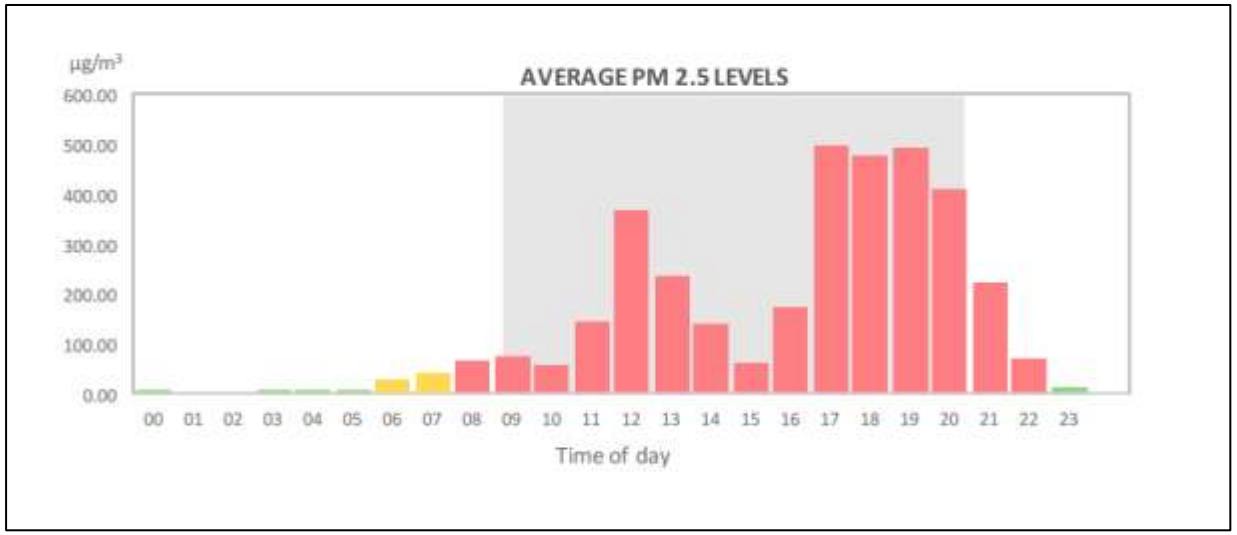
1. VOCs are generally very high with infrequent peaks at intervals

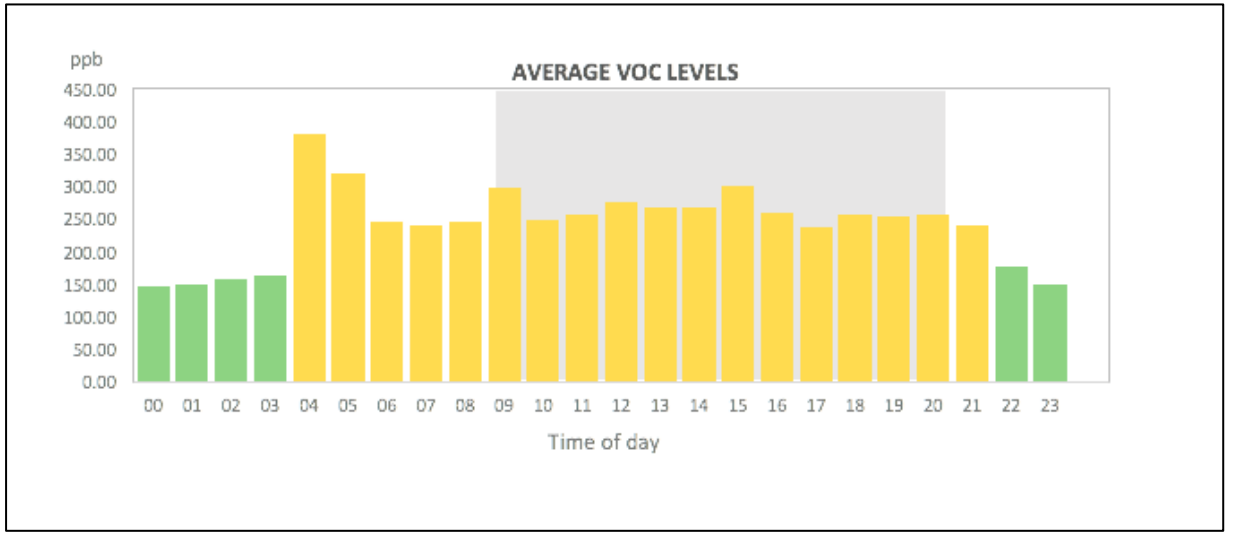
2. Particulate pollution partial co-relation with VOC peaks and generally very high in the premises

Active Buildings

Case studies

Case study: 5 star hotel kitchen area in London





Noted behaviour:

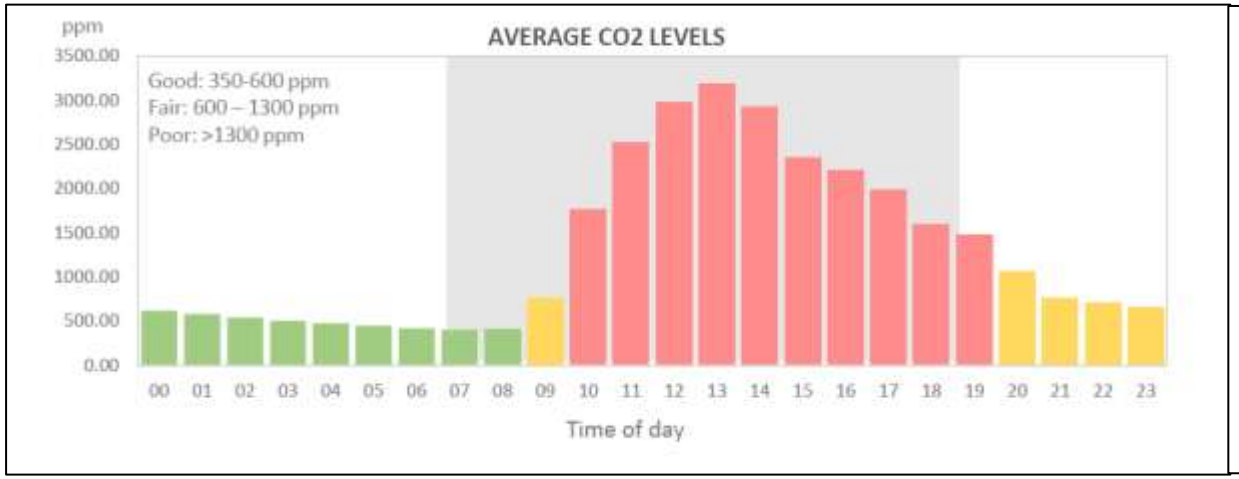
1. Occupancy period shows a start increase in Particulate pollution that only increases throughout the day

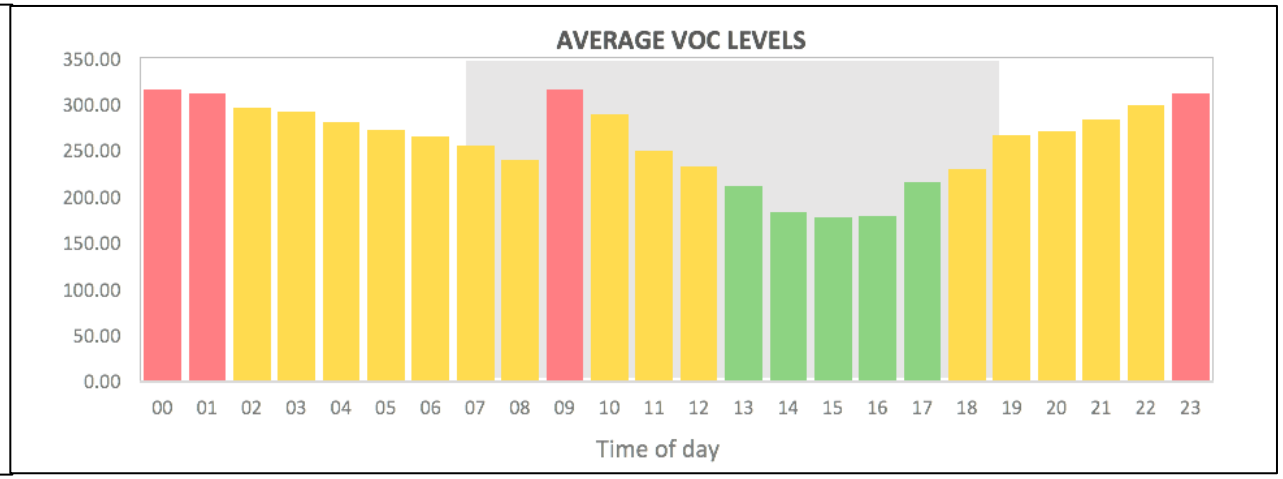
2. Co-related occupancy period shows a threshold increase in VOC pointing to a source in the ventilation area

Active Buildings

Case studies

Case study: Banking building in Mumbai





Noted behaviour:

1. Occupancy period show dangerously high CO2 levels in the premises with good leakage in non occupancy period

2. VOC traces are higher in non occupancy period which reduces when space is ventilated pointing to fixture sources of VOCs

Questions?


I CAN'T HEAR MYSELF THINK.
IT'S REALLY HARD TO TYPE WITH YOUR MITTENS ON.
ANOTHER DAY AT THE SWEAT SHOP.
TURN DOWN THE #@&!* HEAT.
IT'S TOO QUIET IN HERE.
ANOTHER DAY WORKING IN THE DARK, LITERALLY.
I THINK I CAN SEE MY BREATH.
TURN UP THE #@&!* HEAT.
YOU COULD FLY A KITE IN THIS BREEZE.
OUR NEW TASK FORCE ON CUBICLE COMFORT HAS BEEN VERY EFFECTIVE. THEY'VE ELIMINATED ANY TRACE OF IT.
I CAN STILL SMELL WALLY'S CHILI.
I DON'T THINK THIS AIR MOVED SINCE 1957.