

# BUILDING MANAGEMENT SYSTEM EVOLUTION

**TURNKEY INTEGRATED ELV SOLUTION**



**SAFETECH**  
SECURITY & SAFETY SYSTEMS

# About Us



## Founded

Bin otaiba group, over 40 years establishment  
reliable turnkey integrated advanced elv  
solution



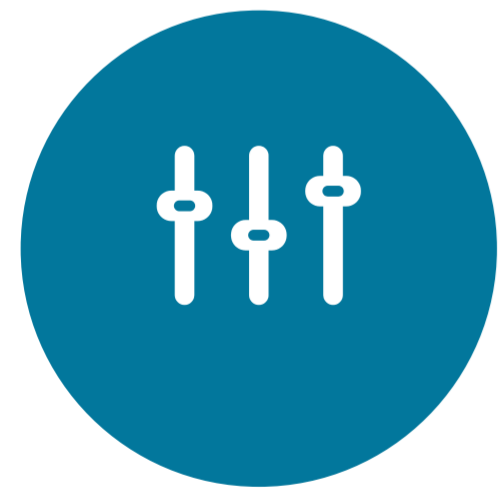
## Team & National Presence

Over 20 years consolidated experienced  
professionals with strategically positioned  
back office team in India & Italy



## Process

Process oriented organization,  
ISO 9001: 2015, ISO/IEC  
27001:2013, ISO:45001:2018, ISO:14001:2015



## Design and Build

Primarily established as Consultants. We  
take up Design and Build opportunities



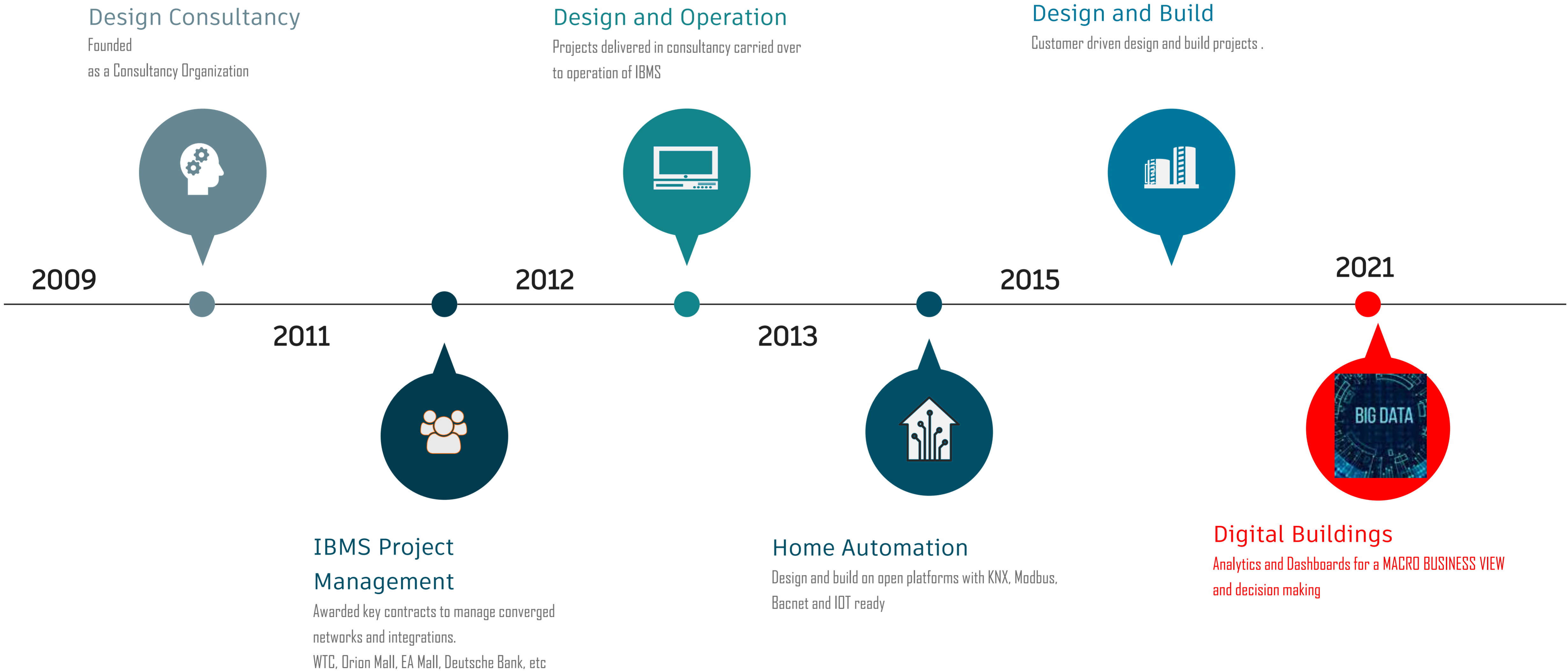
## Innovation

Apps for IOT based Elevator Control , Visitor  
Management, Energy and Maintenance



## Service

Performance driven. Quick turnaround time.



# Our Services

## Building Management Systems

Control and Monitor of Mechanical, Electrical, Plumbing, Life Safety, Security, IOT , Energy Dashboards, Cloud onboarding.

## Security

CCTV Cameras, Access Control, Access barriers, Visitor Management, Entrance Control, etc.

## Safety

Fire Alarm, Smoke Alarm, Ventilation control, Detectors, Intrusion.



BMS



Infrastructure

## Infrastructure

Networking design and implementation, wireless, internet, Telecommunication



Security



Sound

## Sound

Public Address, Background Music, .



Safety



FMS/PMS

## FMS/PMS

Utility billing, Energy Monitoring, Cloud Analytics, etc.



Evolution from  
**DIGITAL BUILDINGS**

**BUILDING AUTOMATION TO  
BUILDING INTELLIGENCE**

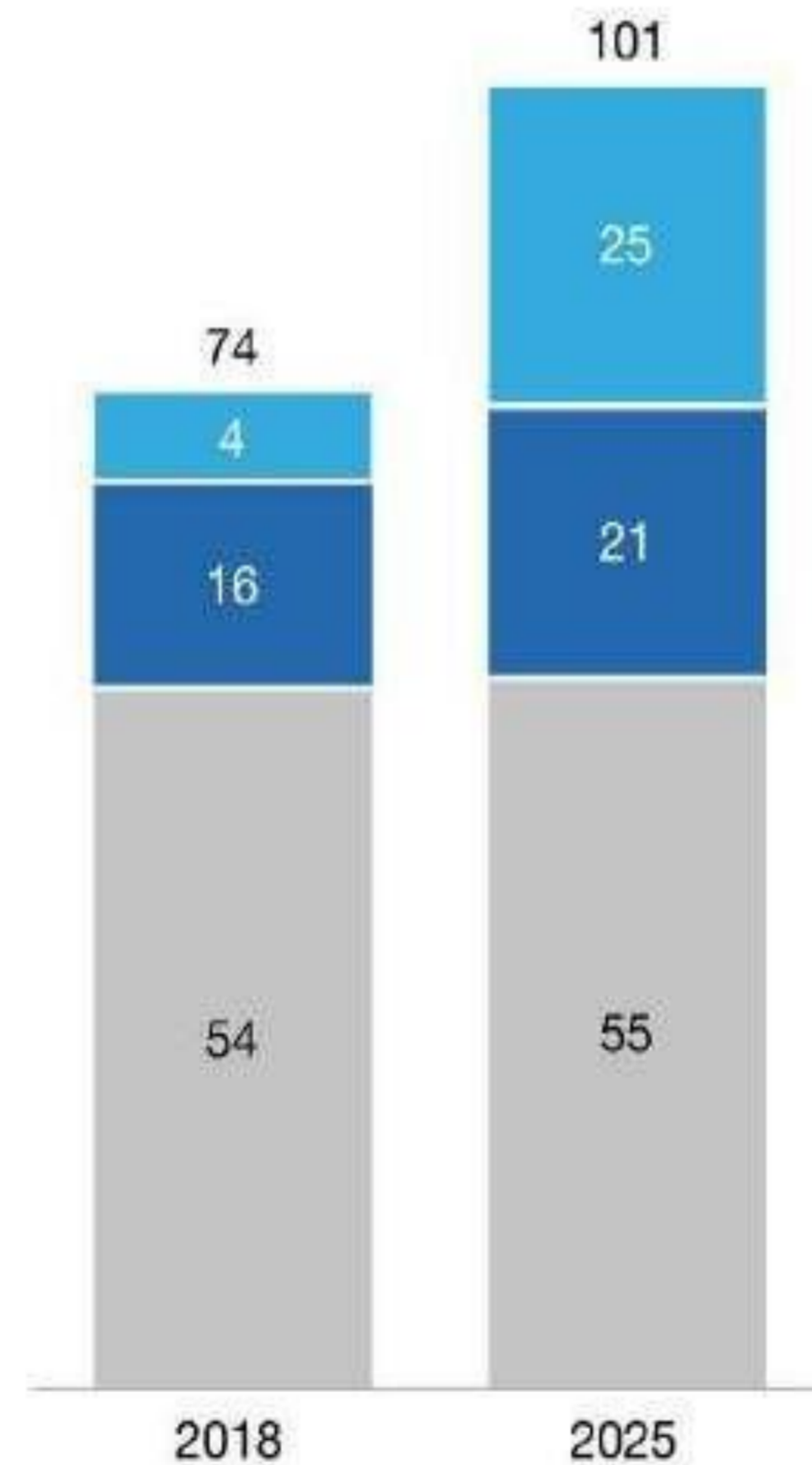


# Connectivity driving the next wave for building controls

- Intelligent building systems
- Traditional building controls
- Connected controls, energy management

*10 Billion IoT devices by 2020*

Global building-controls market  
\$ billion



CAGR,<sup>1</sup>%

31



Hardware, software, and digital services creating new value by connecting formerly discrete building domains (eg, lighting, HVAC,<sup>2</sup> safety, security, utilities)

4



Growth slowing for pure-play energy-management platforms as functionality integrates into intelligent building systems

<1



Growth stagnating for traditional, domain-specific controls as connectivity drives use-case innovation

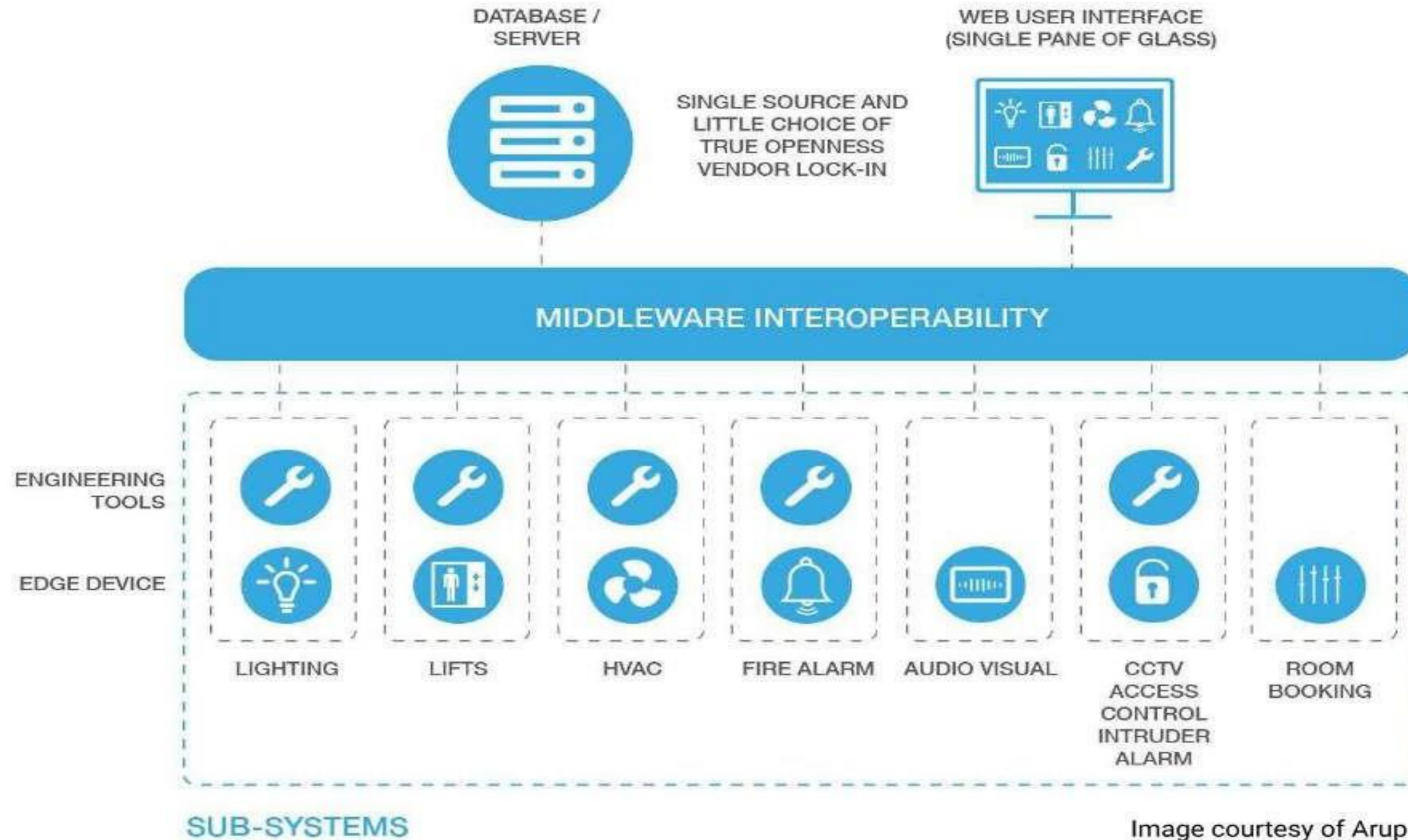
<sup>1</sup>Compound annual growth rate.  
<sup>2</sup>Heating, ventilation, and air conditioning.

[Laying the foundation for success in the connected-building era](#) McKinsey & Company



# Current Approach

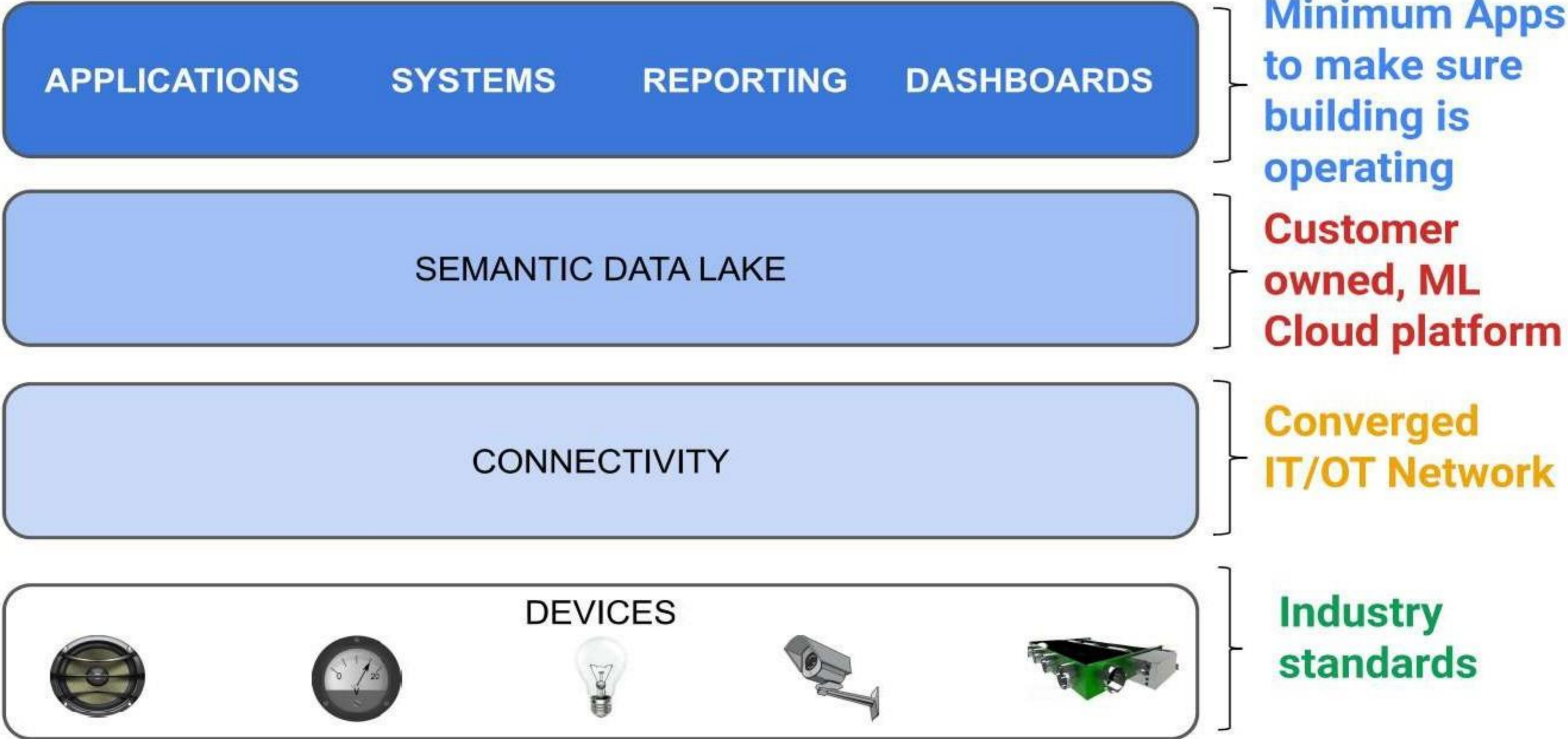
## Traditional Integrated Building





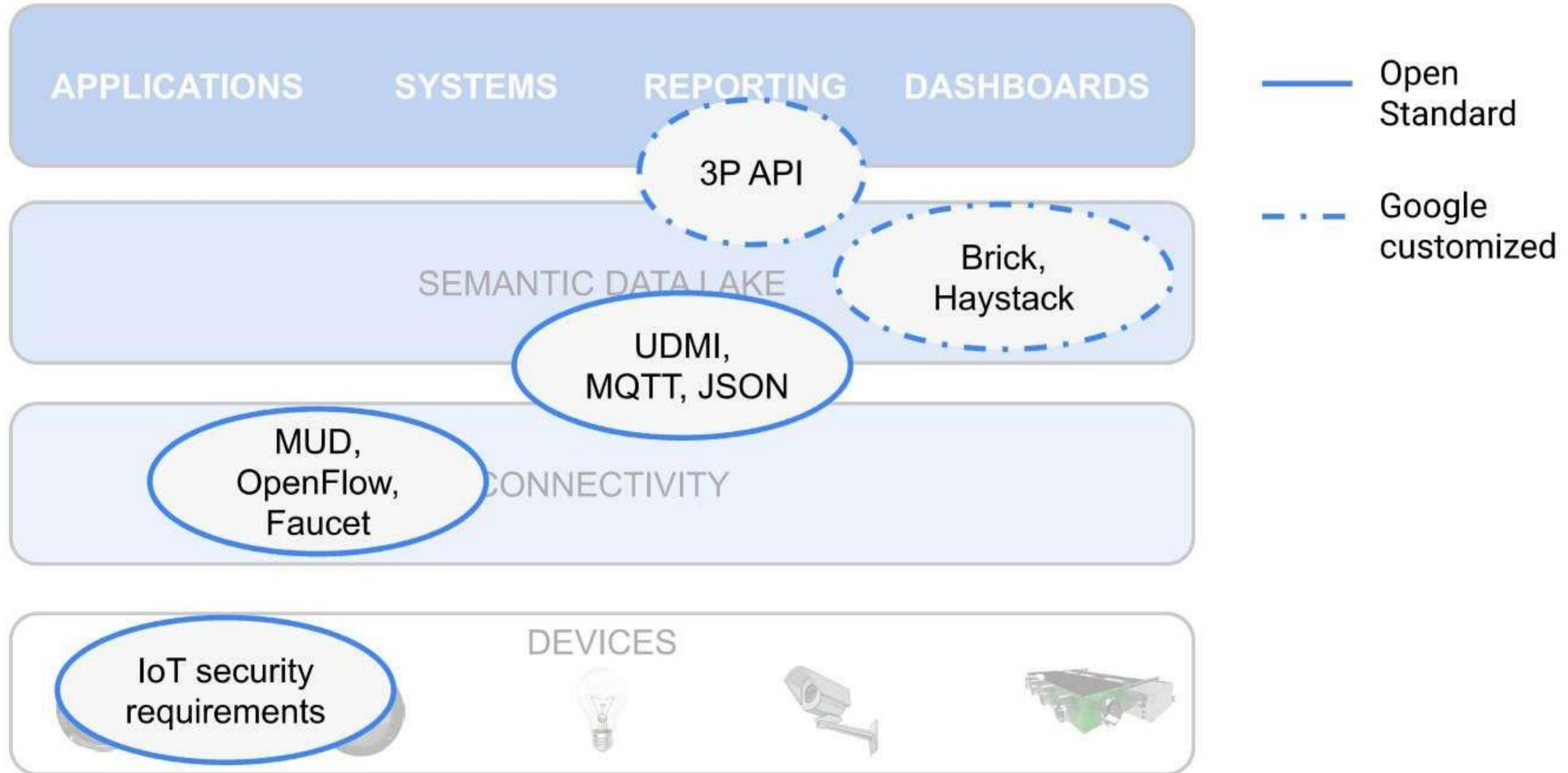
# Digital Building

## Horizontal approach



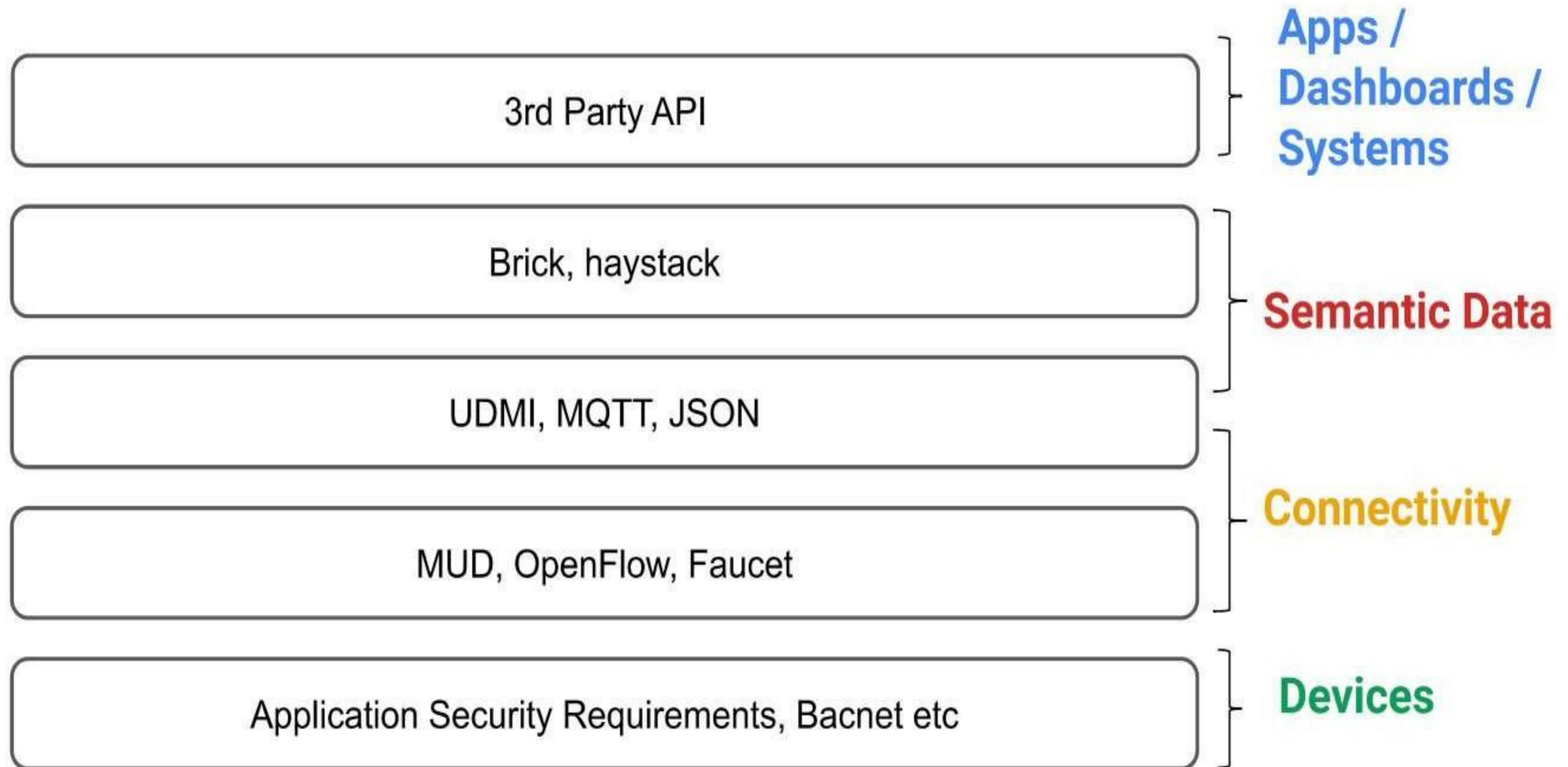


# Open source standards



# OPEN STANDARDS FOR DIGITAL CONNECTIVITY

## Open source standards





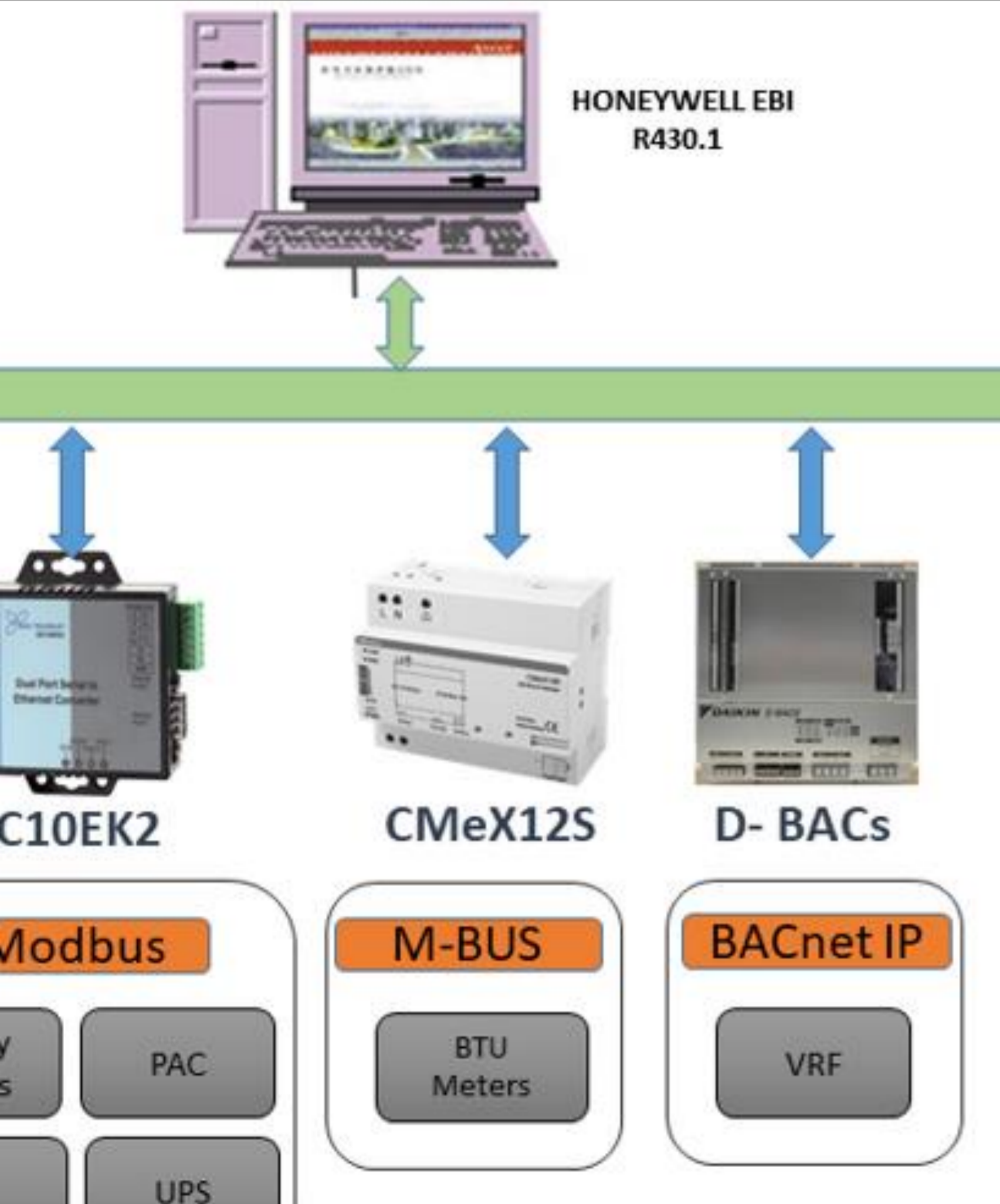
# DIGITAL TWIN

Digital Twin combining different levels of data





# Pre-Migration Architecture



# Migration to IOT Ready Platform

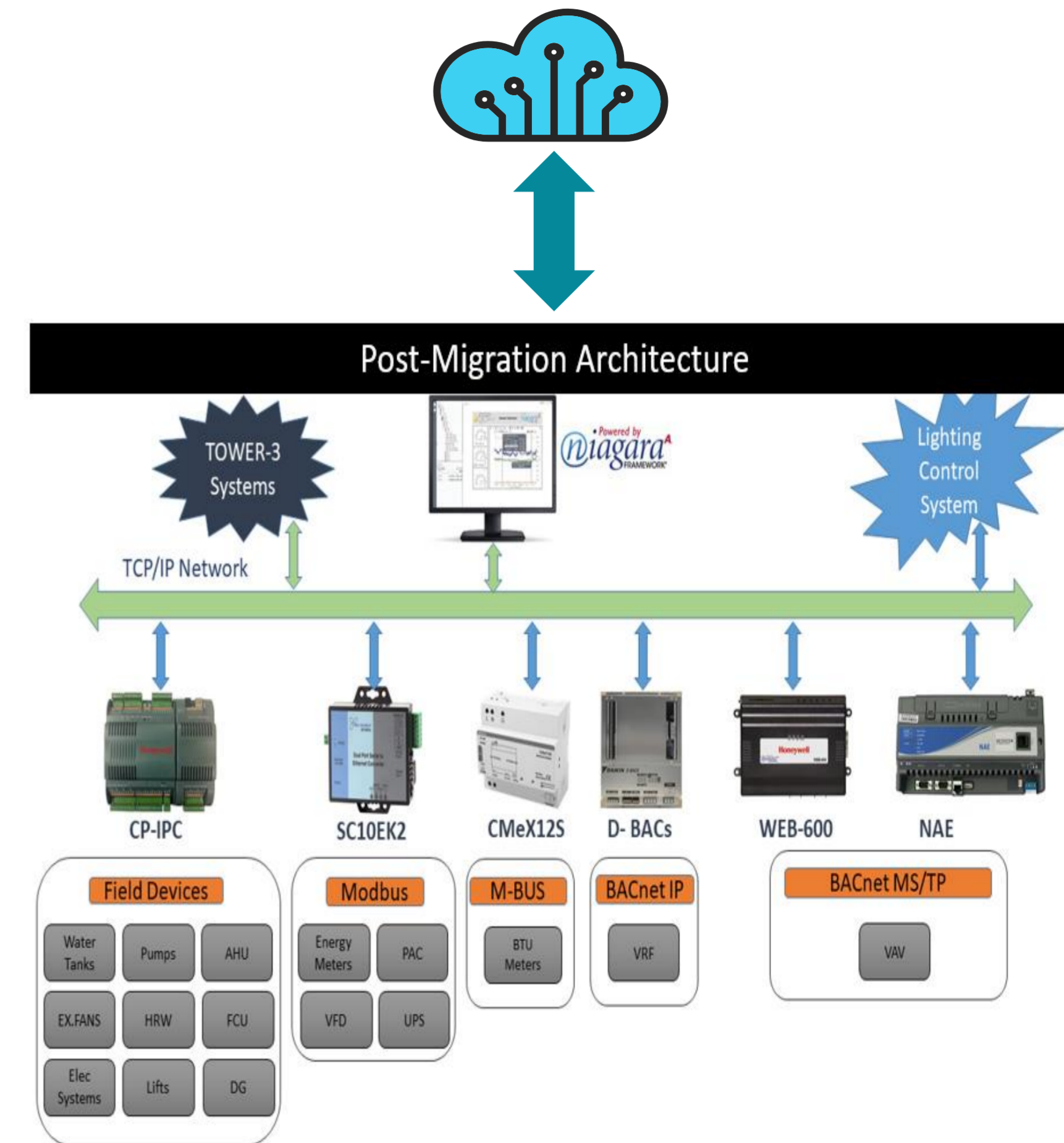
From Legacy closed platform EBI to IOT enabled Niagara Platform.

30,000 data points migration

Zero Down time

In 90 days

IOT Analytics, Machine Learning, AI



A CLIENT CASE OF TRANSFORMATION FROM LEGACY ARCHITECTURE TO STATE-OF-THE-ART ARCHITECTURE







# GRAPHICS

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*From* **BMS Graphics**  
*To* **Dashboards**

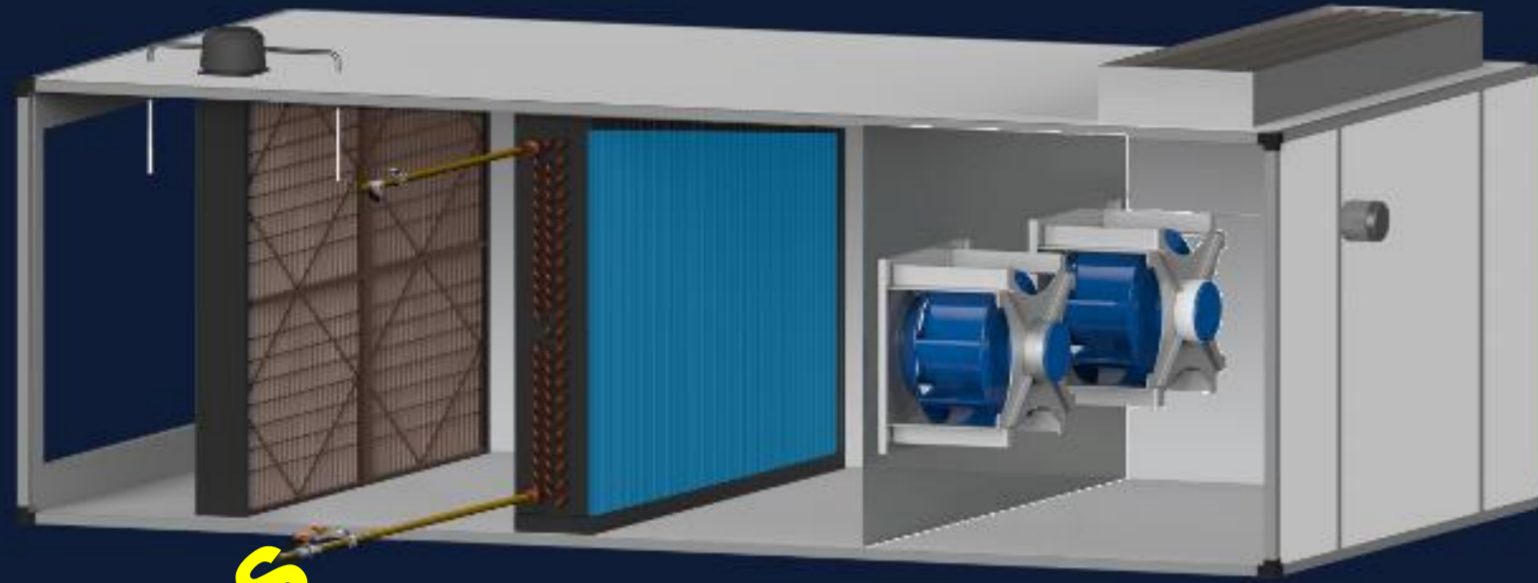


TOWER A - GROUND FLOOR - AIR HANDLING UNIT 1



- HOME
- TRENDS
- SCHEDULE

FILTER	
STATUS	0.0
COOLING VALVE	
CONTROL	0.0



SA TEMP	
VALUE	0.0
SETPOINT	0.0

WALL SENSOR	
TEMP	0.0
HUMIDITY	0.0
CO2	0.0

SUPPLY FAN	
COMMAND	0.0
RUN STS	0.0
TRIP STS	0.0
A/M STS	0.0
VFD CNTRL	0.0

BMS Graphics

BACK

VENBA

TOWER A - GROUND FLOOR - HEAT RECOVERY UNIT 1



- HOME
- TRENDS

EXHAUST FAN	
COMMAND	0.0
RUN STS	0.0



VAV

SA TEMP	
VALUE	0.0
SETPOINT	0.0

SA HUMIDITY	
VALUE	0.0
SETPOINT	0.0

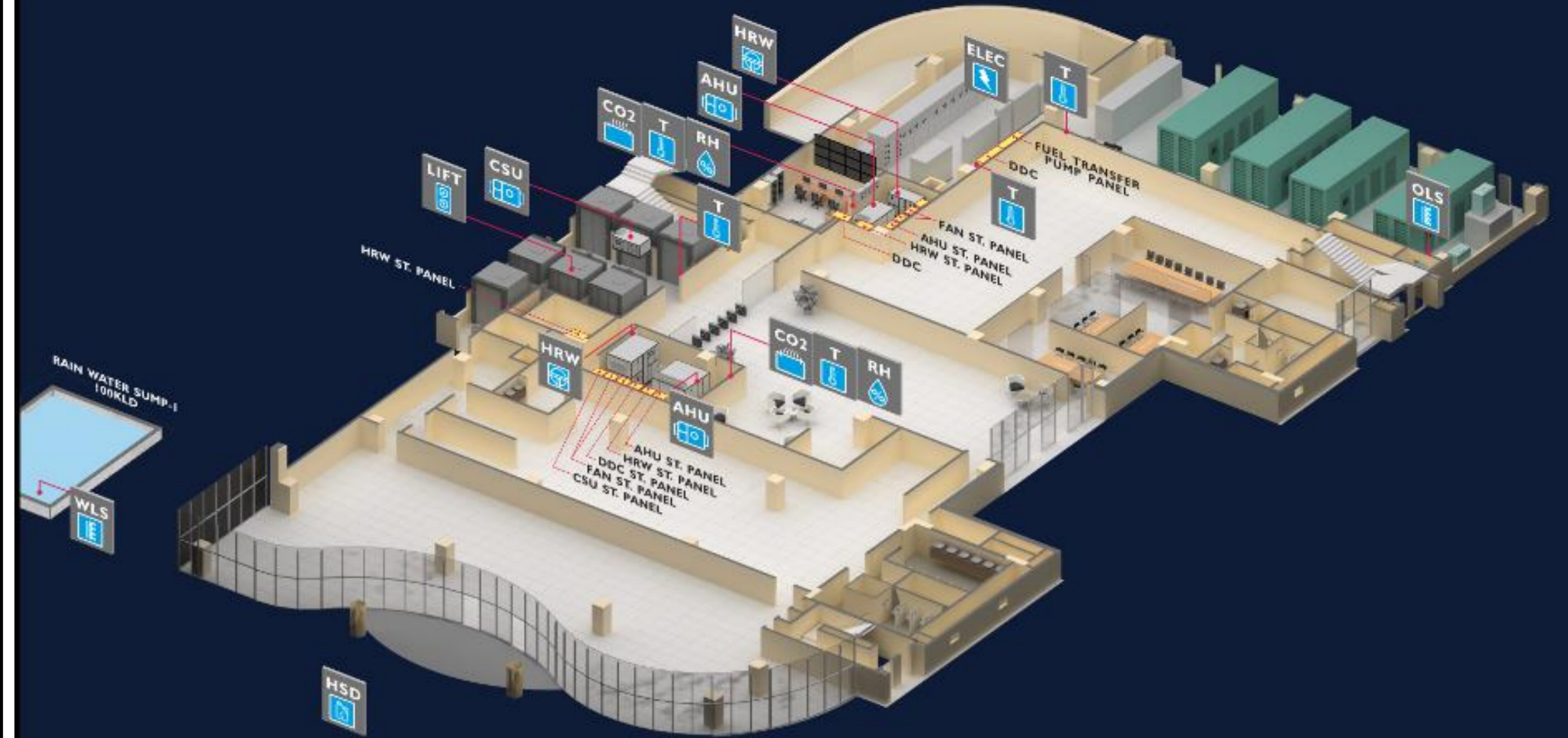
FILTER	
STATUS	0.0

SUPPLY FAN	
COMMAND	0.0
RUN STS	0.0

BACK

VENBA

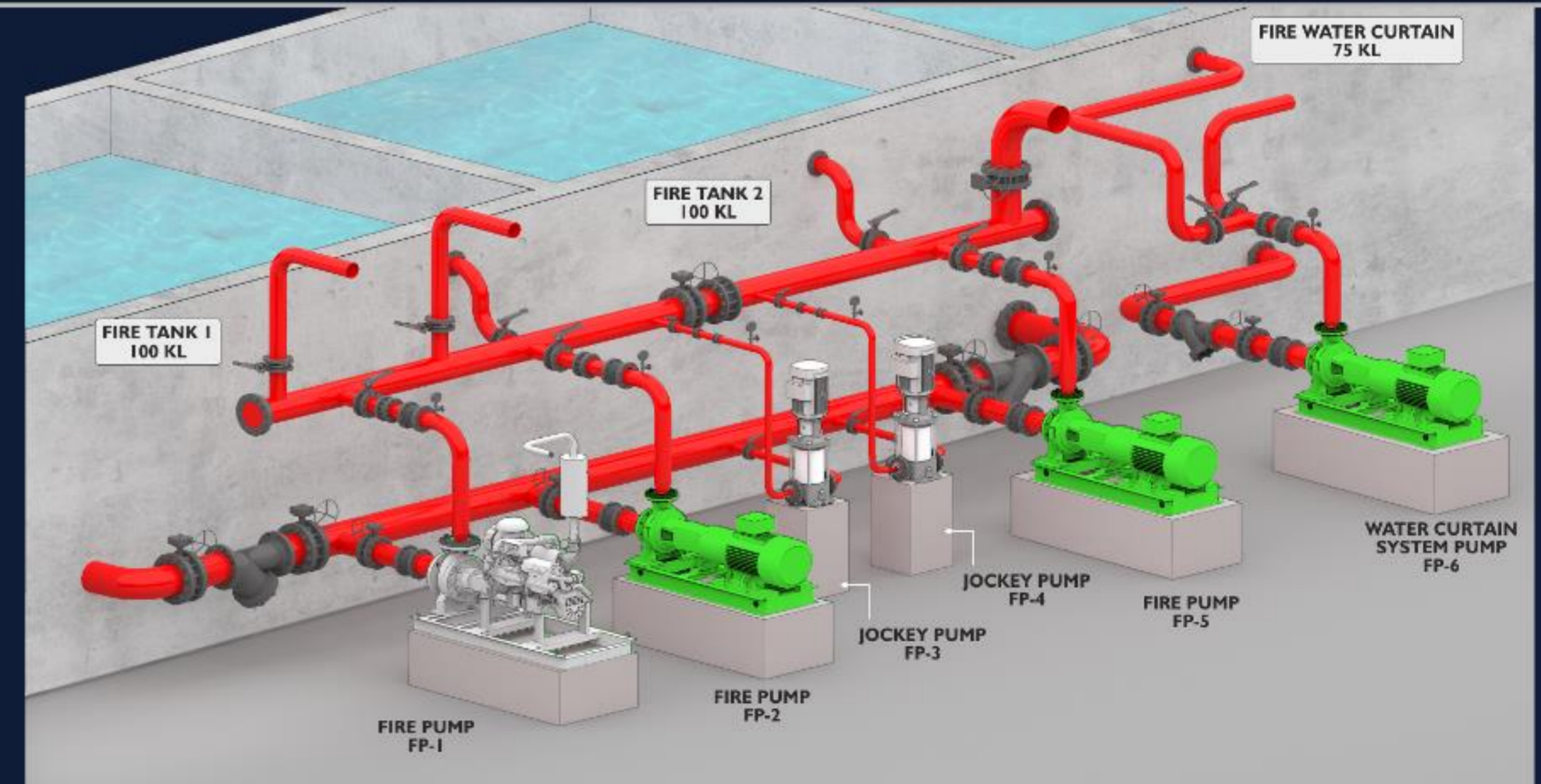
TOWER A - GROUND FLOOR LAYOUT



BACK

VENBA

TOWER B - FIRE PUMP ROOM

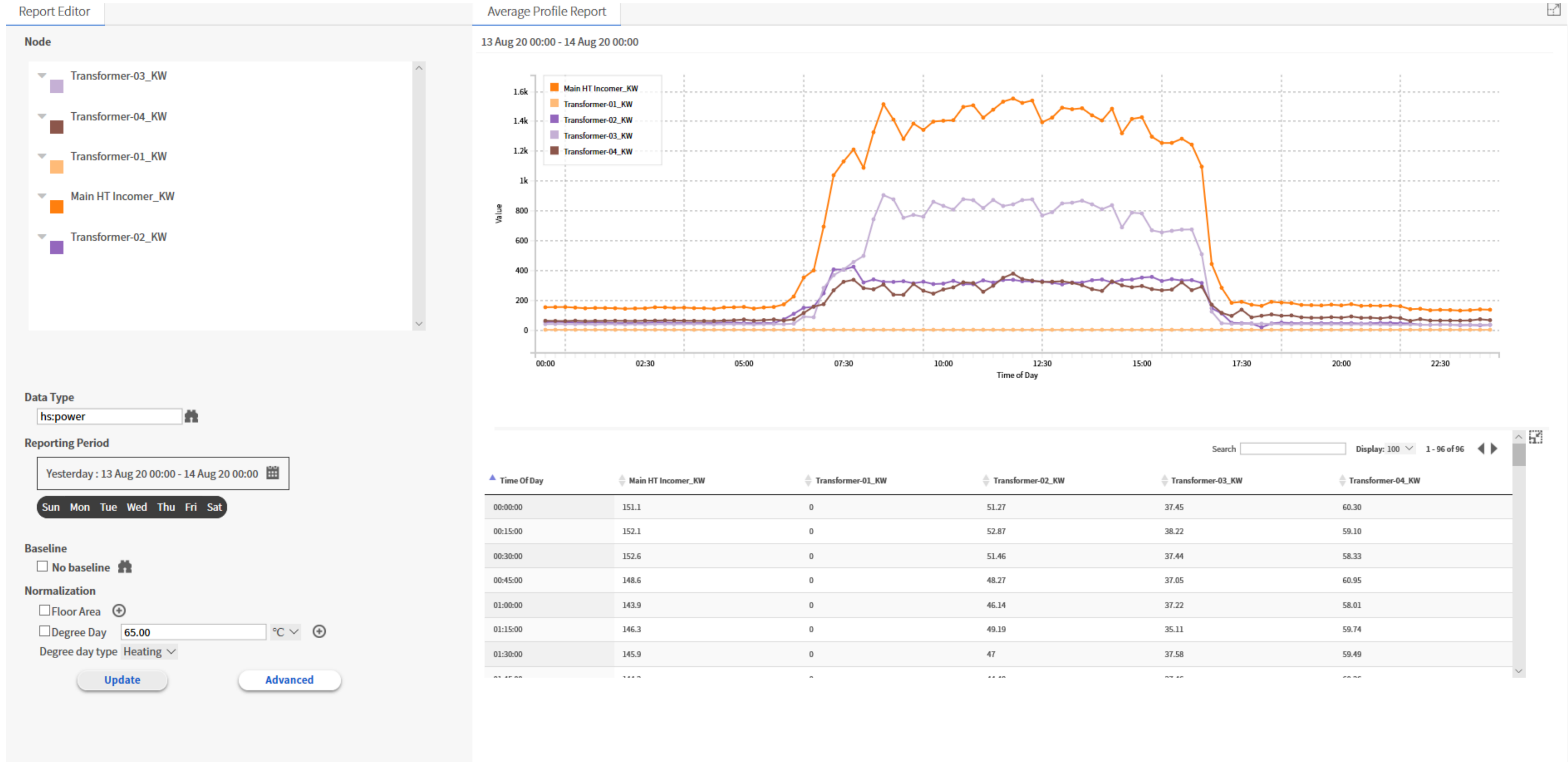


BACK

VENBA



# ENERGY GRAPHS of a FACTORY



# ENERGY GRAPHS

Report Editor
Ranking Report

**Node**

- Transformer-02\_KWH
- Transformer-03\_KWH
- Main HT Incomer\_KWH
- Transformer-04\_KWH
- Transformer-01\_KWH

**Data Type**  
hs:energy

**Reporting Period**  
Time Range : 1 Aug 20 06:00 - 2 Aug 20 06:00

Sun Mon Tue Wed Thu Fri Sat

**Normalization**

Floor Area

Degree Day 65.00 °F

Degree day type Heating

Update
Advanced

1 Aug 20 06:00 - 2 Aug 20 06:00

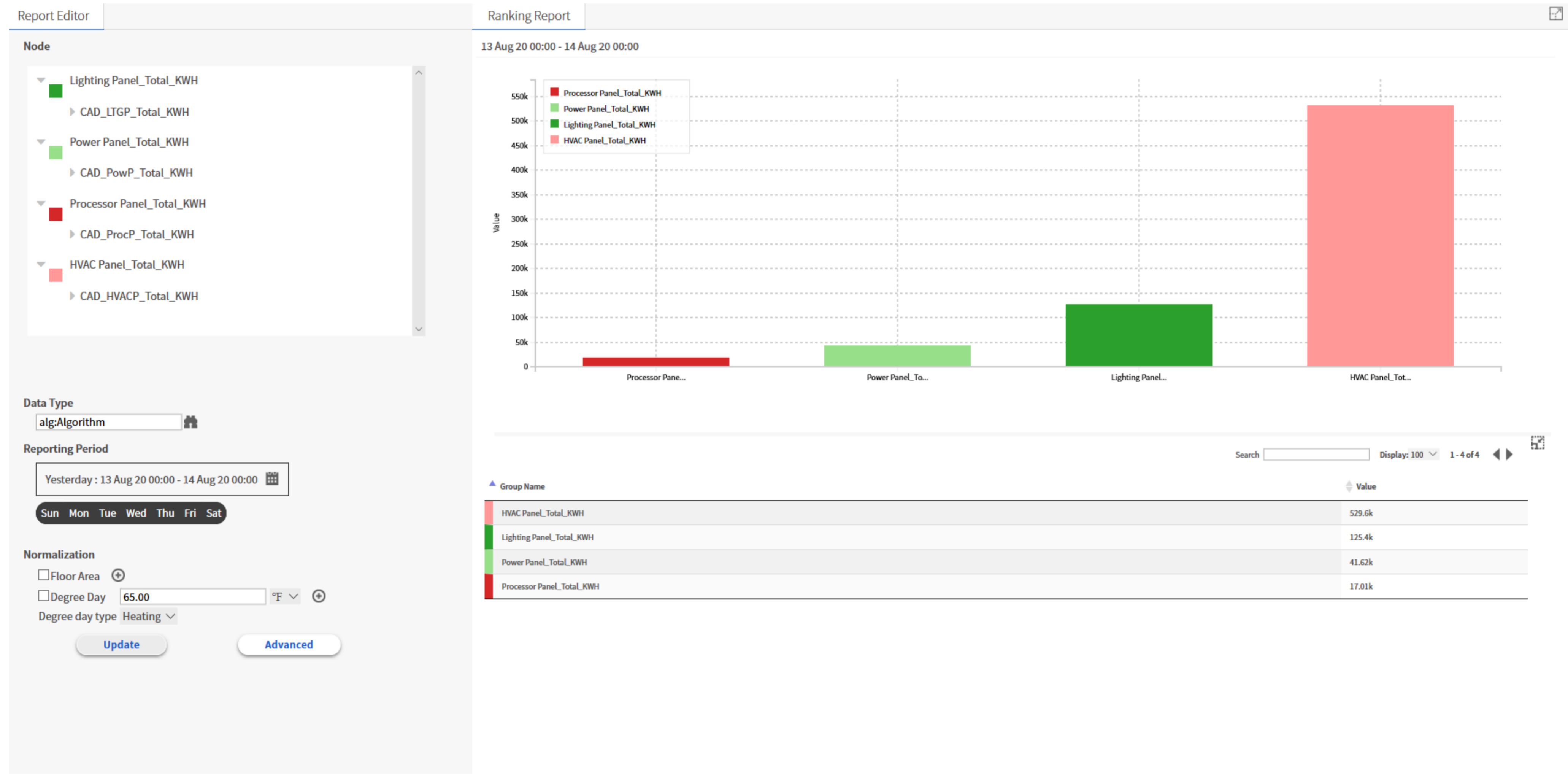
Node	Value (kWh)
Transformer-03_KWH	0
Transformer-04_KWH	0
Transformer-01_KWH	0
Transformer-02_KWH	3.257k
Main HT Incomer_KWH	3.262k

Search  Display: 100 1 - 5 of 5

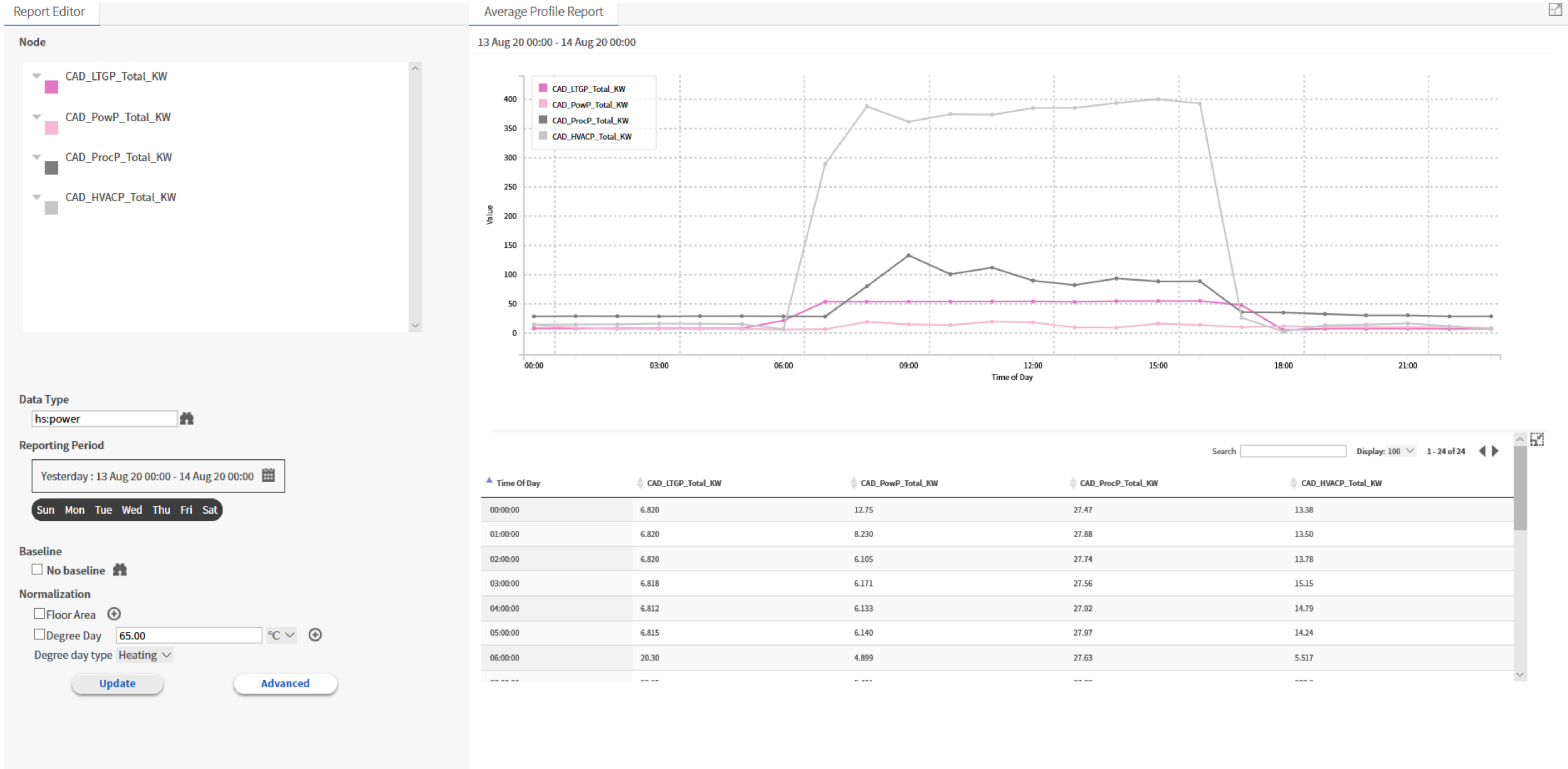
Group Name	Value
Main HT Incomer_KWH	3.262k
Transformer-01_KWH	0
Transformer-02_KWH	3.257k
Transformer-03_KWH	0
Transformer-04_KWH	0



# ENERGY GRAPHS – RANKING REPORT

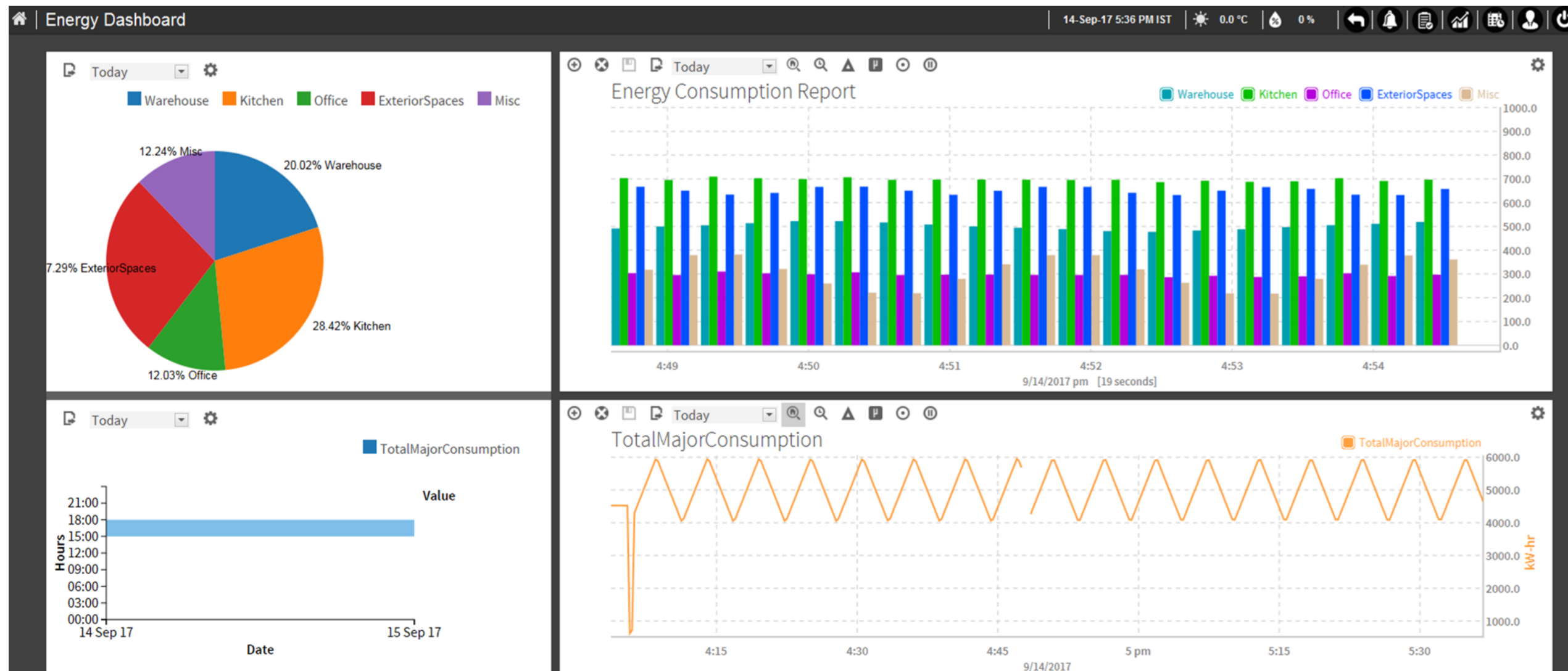
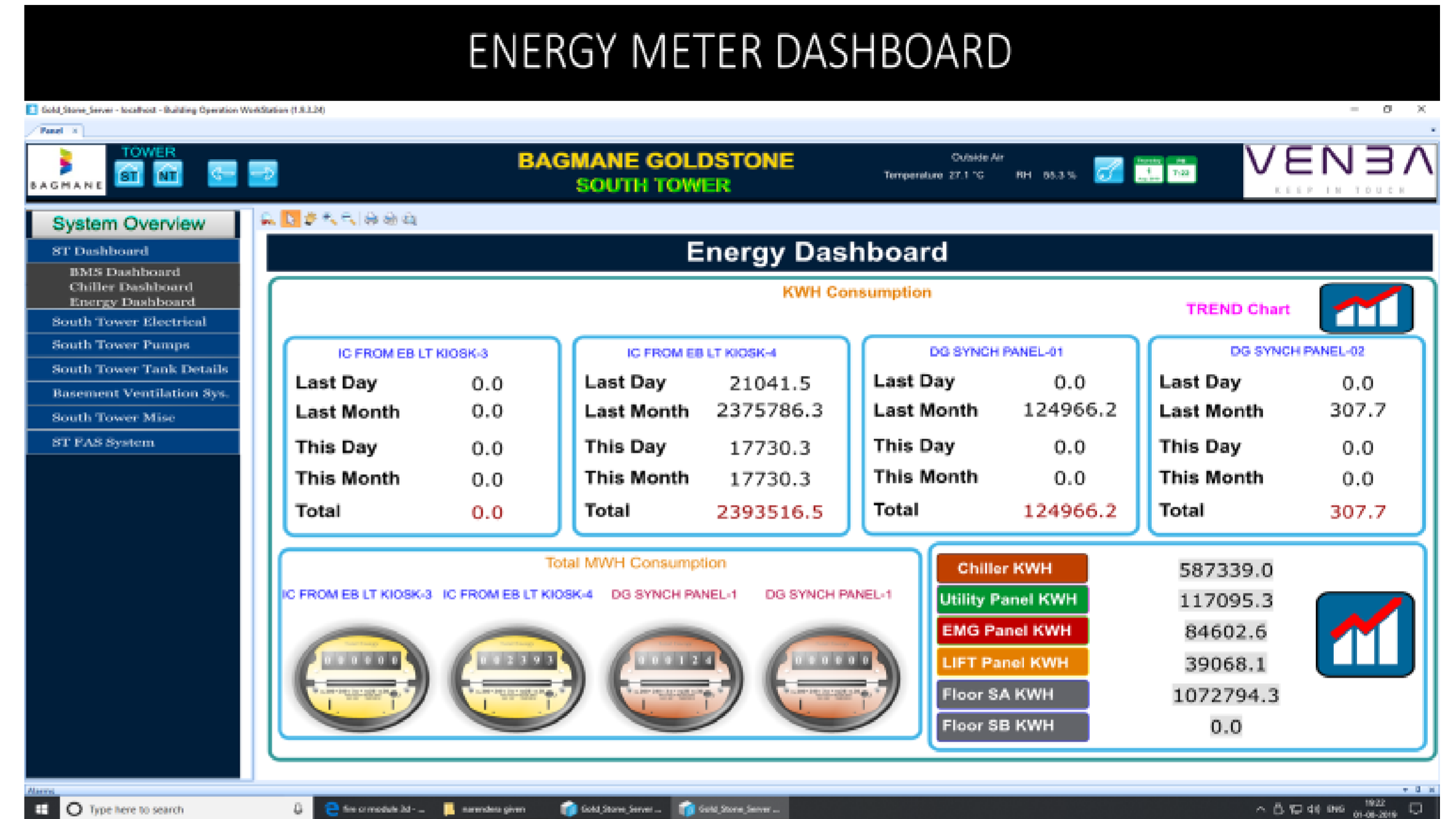
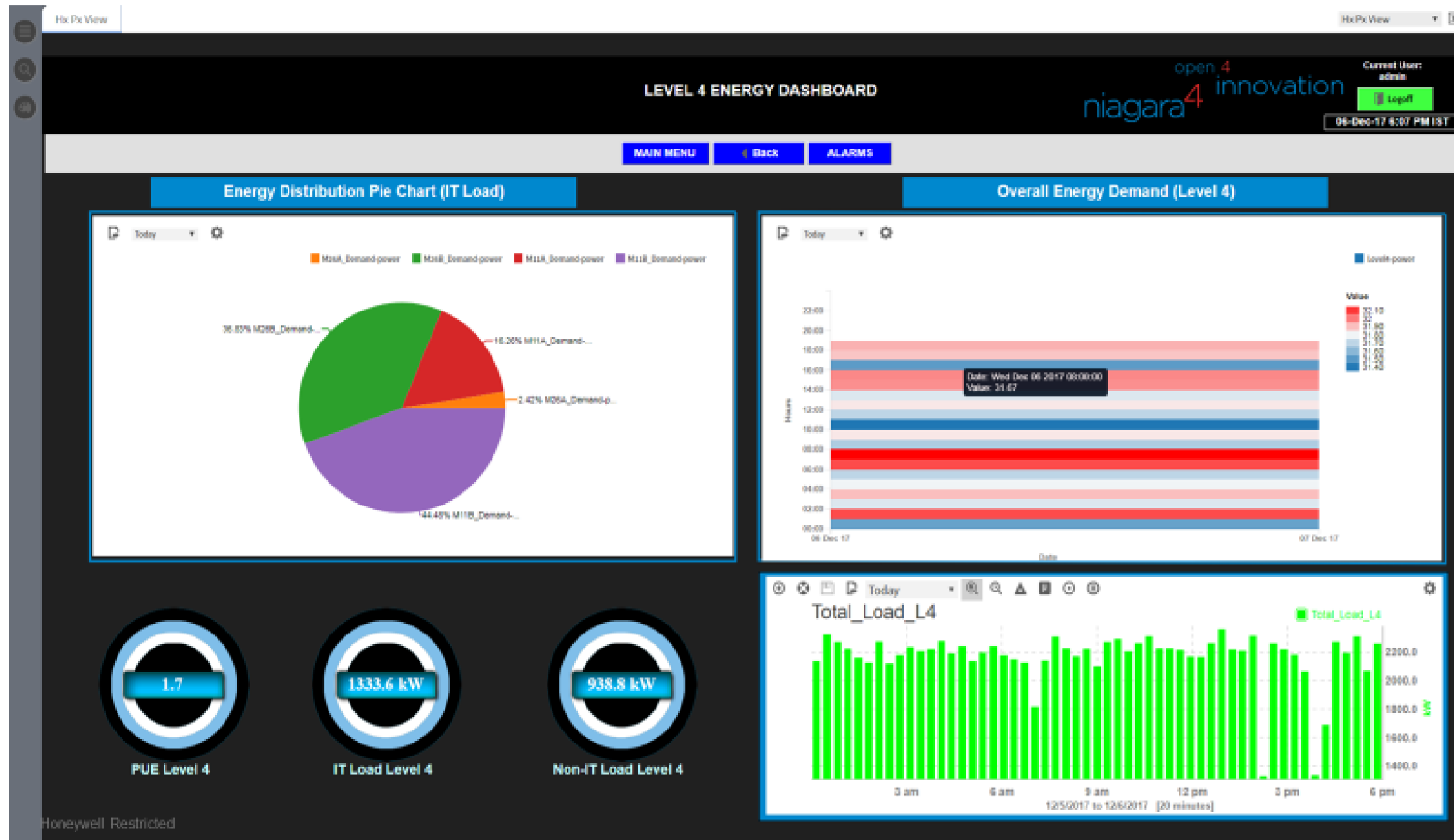


# ENERGY GRAPH – AVG PROFILE REPORT





# Energy Dashboards





# MORE DASHBOARDS

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safeTech: An IBMS design firm



# Power Consumption Report (Main Feeder)



CAD Main Feeder

1.16M

CAFE Main Feeder

112.22K

DPG Main Feeder

417.90K

NMX Main Feeder

589.05K

Utility Main Feeder

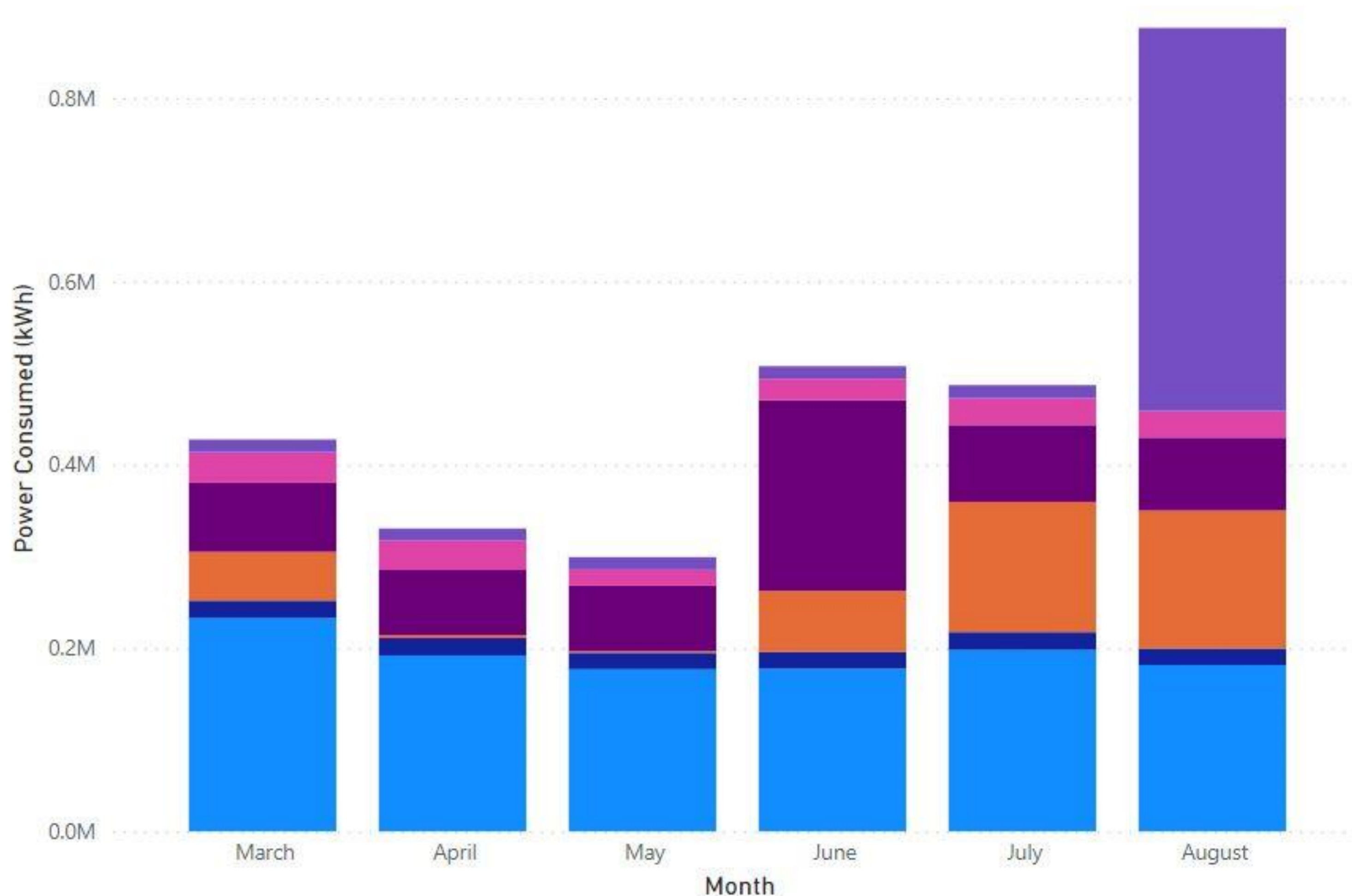
486.79K

Office Main Feeder

164.22K

Total Power Consumption of CAD, CAFE, DPG, NMX, Office and Utility by Month

CAD CAFE DPG NMX Office Utility





# Electrical Dashboard

216.10K

Power Consumption This Month

370.59K

Cost This Month (INR)

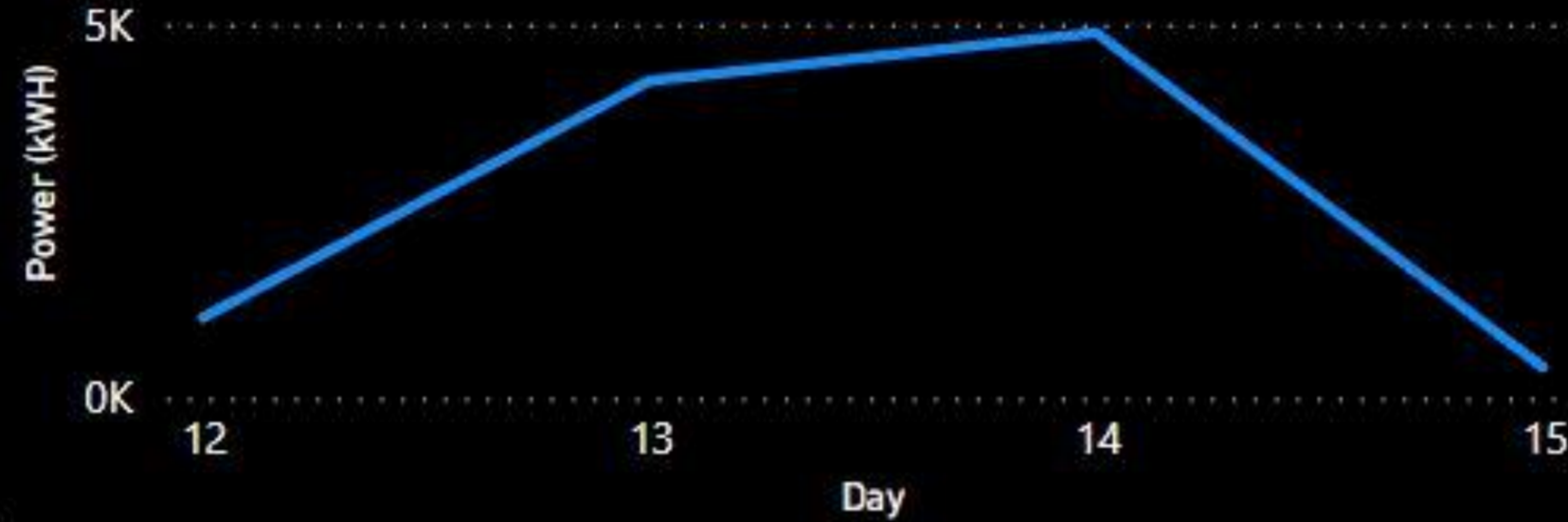
10.60K

Power Consumed Today

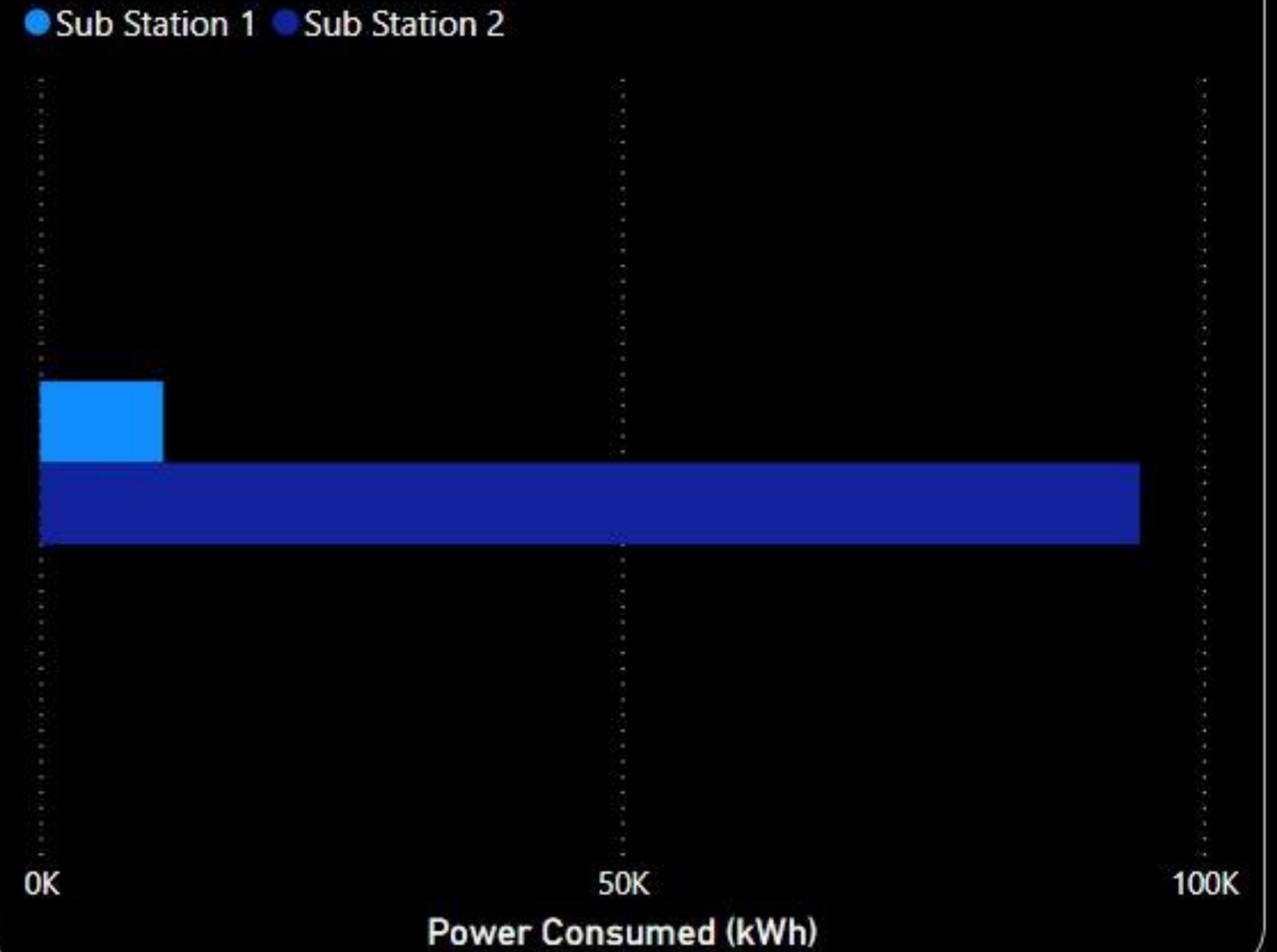
116K

Cost Today (INR)

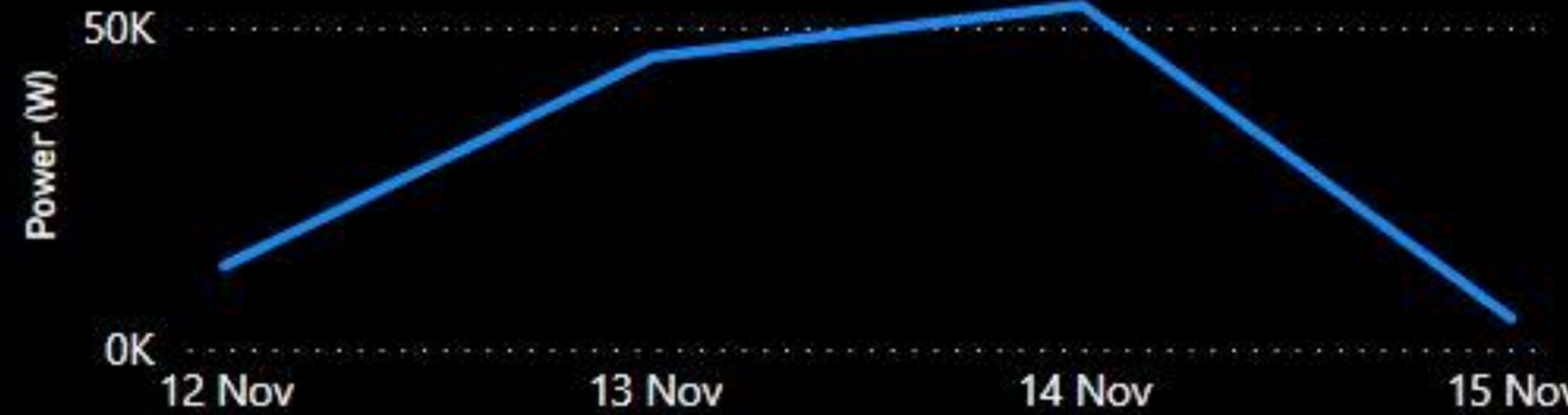
Power Consumed (kWh)



Power Consumed ( per Substation)



ActivePower (W)



Current (A)



Voltage (V)



Power Factor



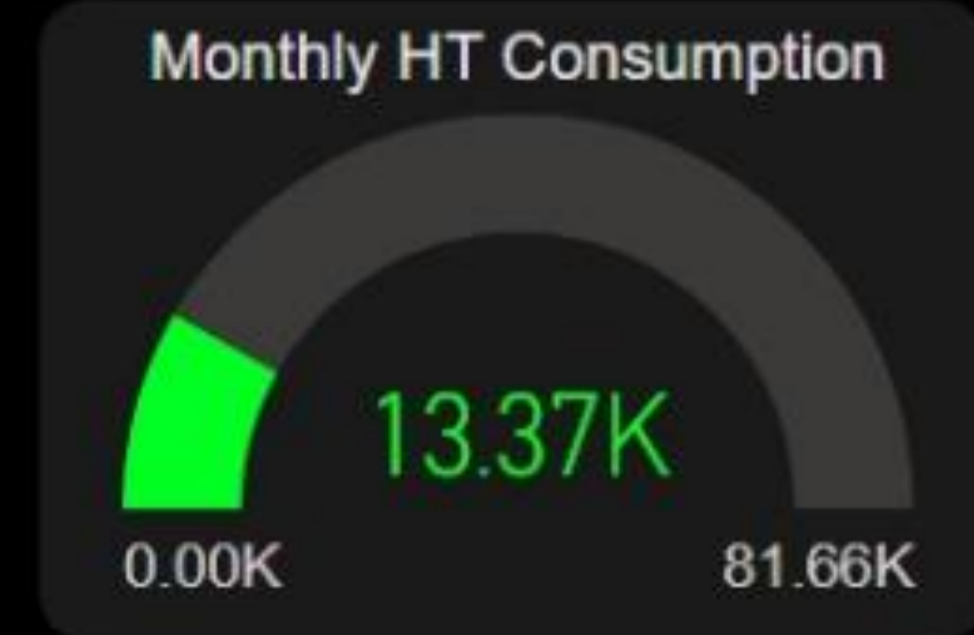
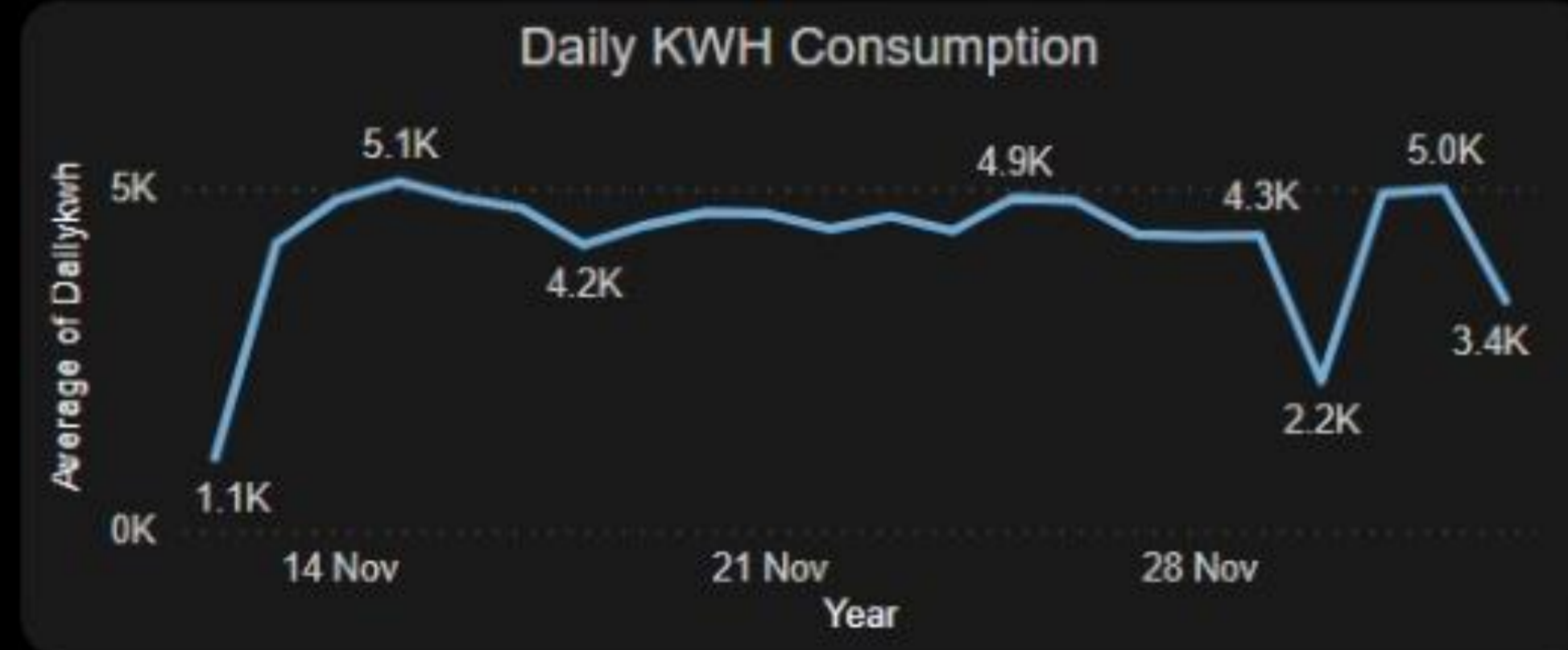
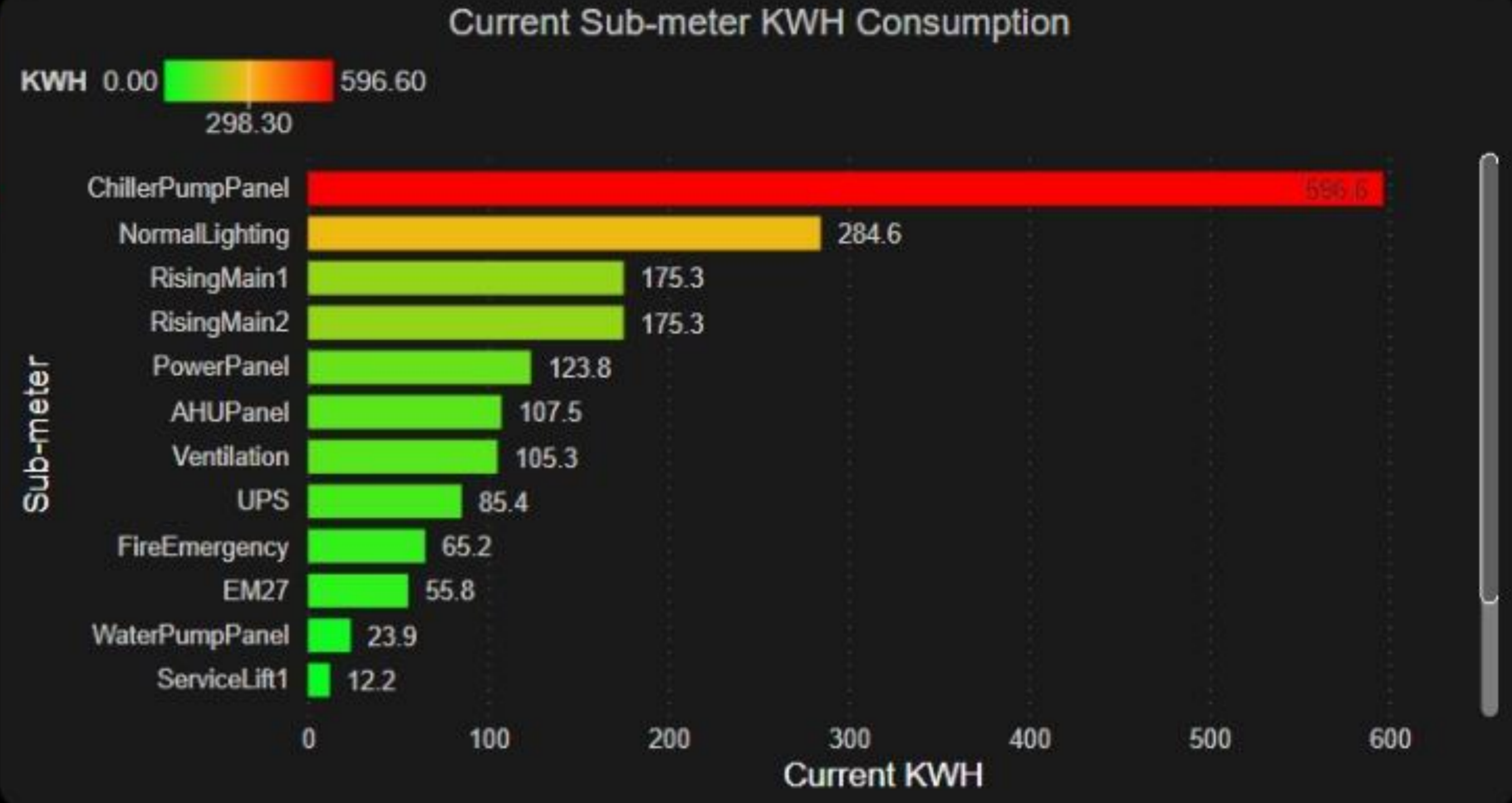
Frequency (Hz)





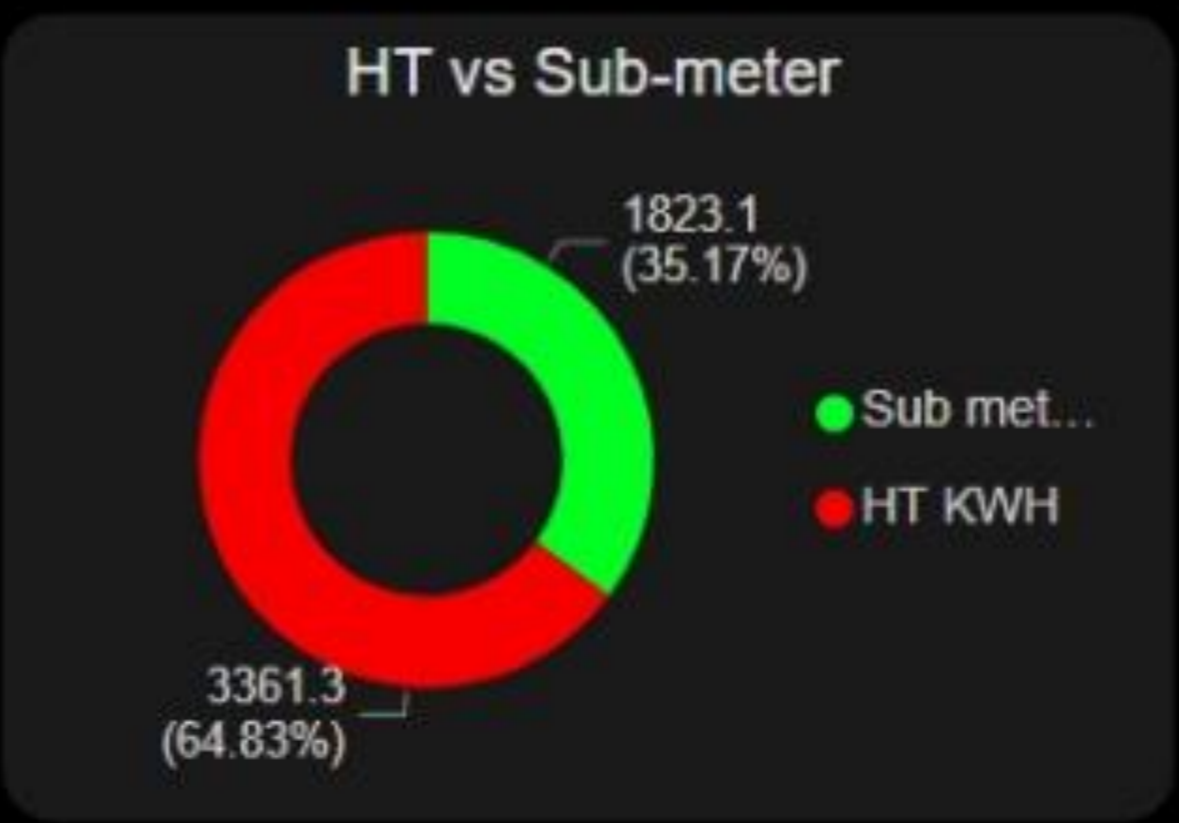
**4,60,548.60**  
HT (KWH)

**17,420.00**  
DG Incomer (KWH)



**3,361.30**  
Current HT (KWH)

**0.00**  
Current DG (KWH)



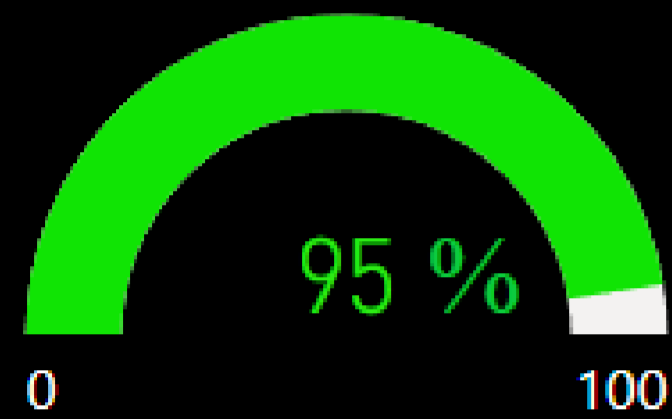
Year:

Month:

Date:

# Indoor Air Monitoring

Floor Air Quality (%)



Floor 1

Floor 2

Floor 3

Floor 4

Basement

## Fresh Air Status

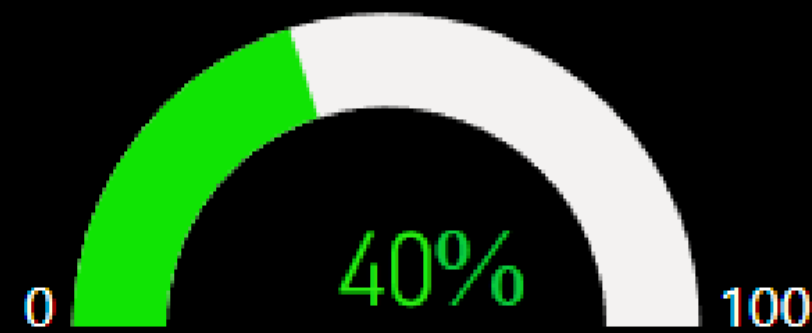
Intake Air CO2 (ppm)

200

Intake Air Temp (°C)

23

Intake Air Humidity (% RH)



## Exhaust Air Status

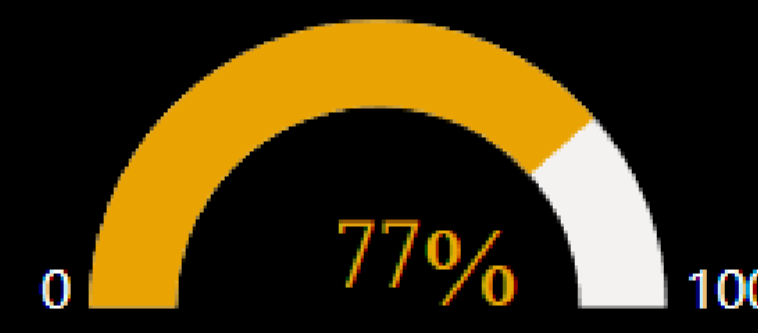
Exhaust Air CO2 (ppm)

550

Exhaust Air Temp (°C)

25

Exhaust Air Humidity (% RH)



Temperature Warnings Today

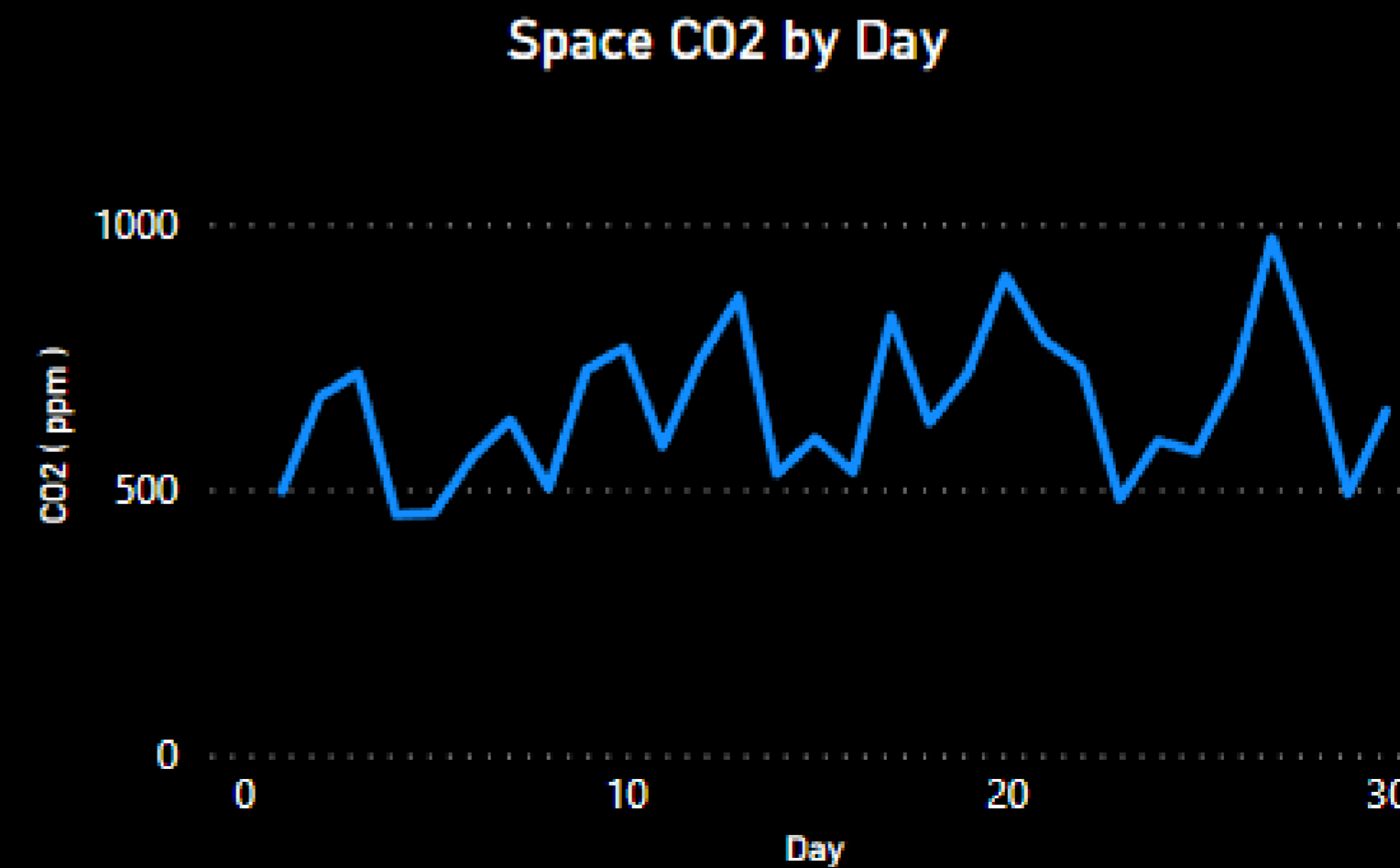
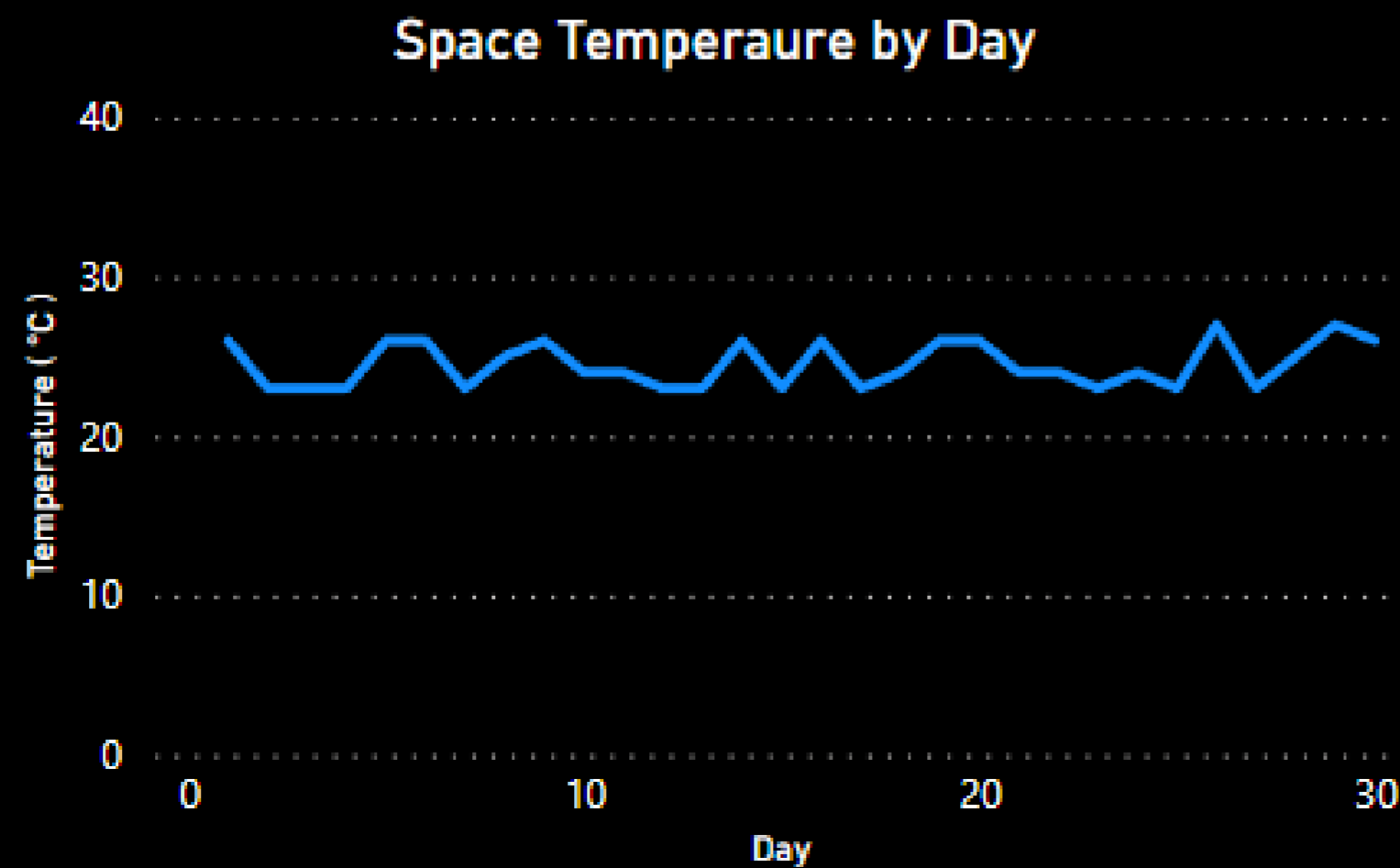
32

Average Space Temperature Today

24 °C

Average Humidity Today (% RH)

45%



Legend

- Optimum Level
- Warning
- Immediate Action Required





# OUR ESTEEMED CLIENTS

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safetech: An IBMS design firm

# OUR VALUED CLIENTS



WELLS  
FARGO



NOKIA

AKDR Towers

Alcatel-Lucent 

EPICOR.



CEEBROS 

Total  Environment

OLYMPIA



HYATT



MALABAR  
GROUP

KONE

  
Hilton  
HOTELS & RESORTS  
*Vestas*



EA  
EXPRESS AVENUE  
express yourself!



 BRIGADE

Scintilla  
— A TIL Healthcare Venture —



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**BIN OTAIBA GROUP**

سافيتيش لأنظمة الأمن والسلامة شركة الشخص الواحد ذ م م  
**SAFETECH SECURITY & SAFETY SYSTEMS LLC**



ISO:9001



ISO:45001



ISO:14001 ISO/IEC:27001

