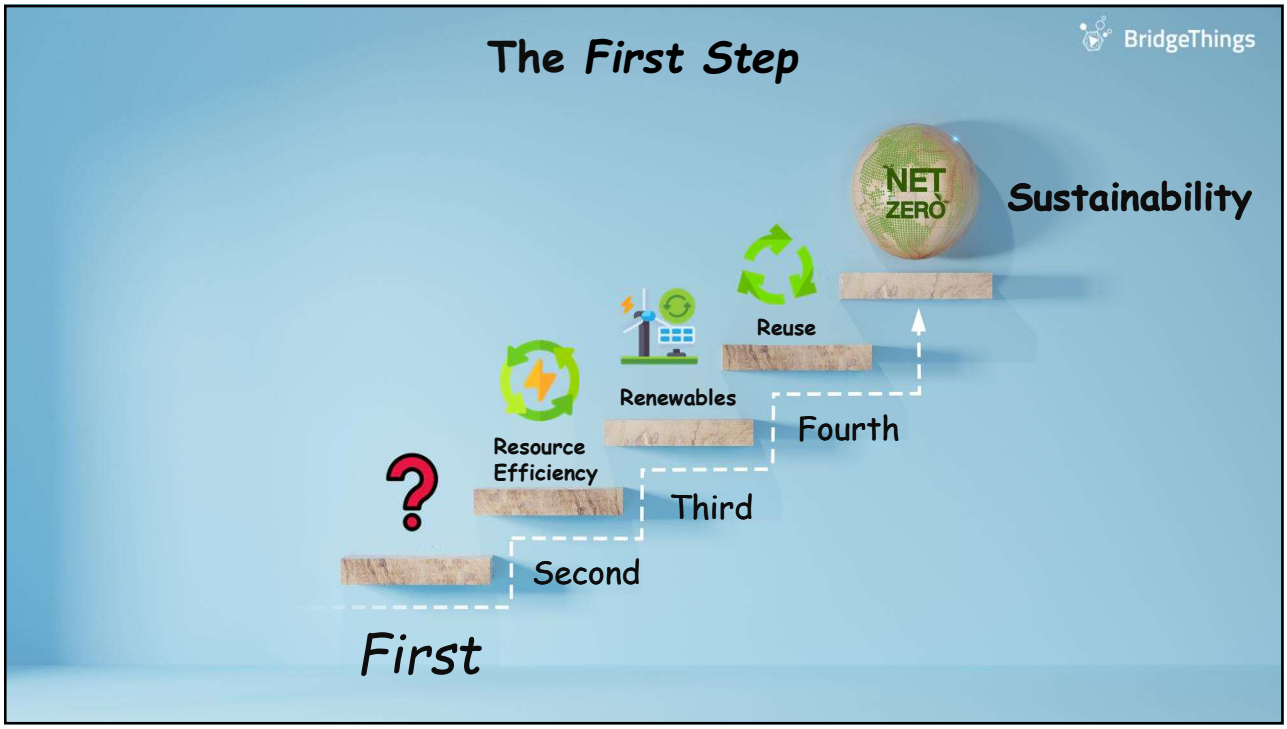

BridgeThings
A Comprehensive solution for utility integration & Sustainability Monitoring
CII - GREEN ENTREPRENEURSHIP COUNCIL
UNIDO
FLOTD
Promoting Innovation and Deployment of Low Carbon Technologies

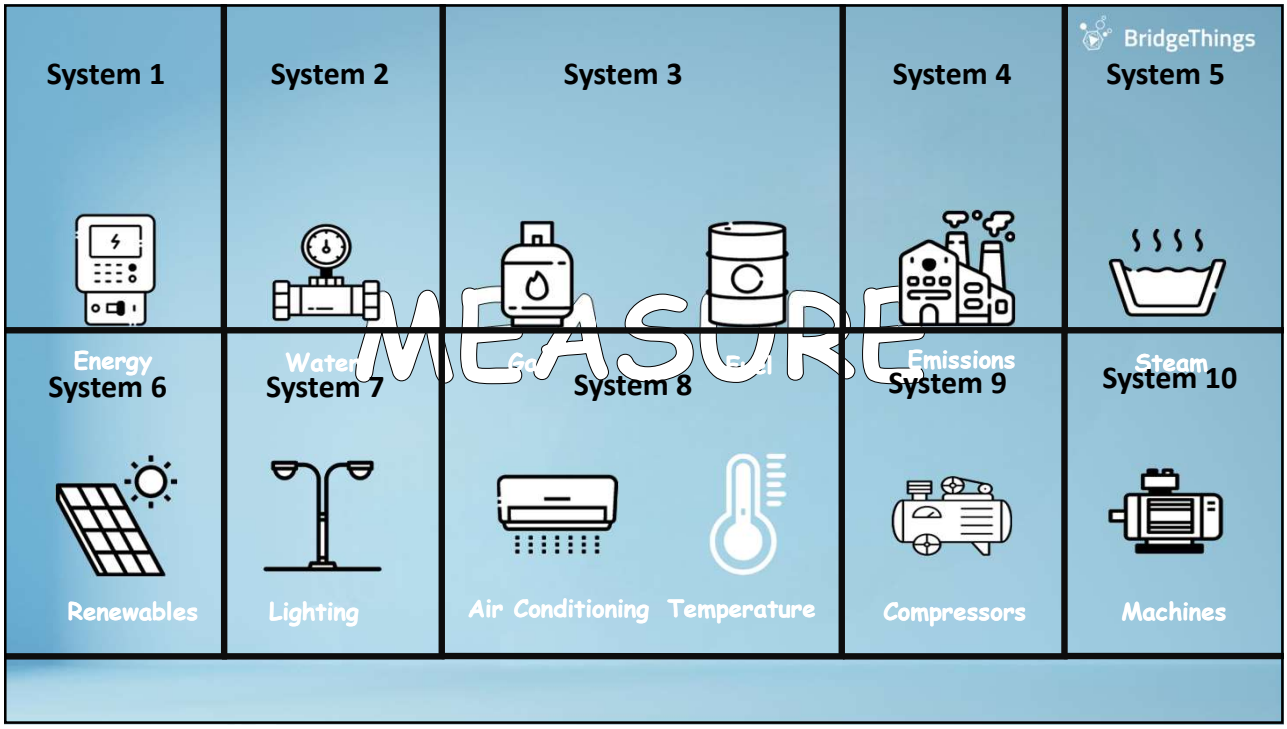
1


Sustainability

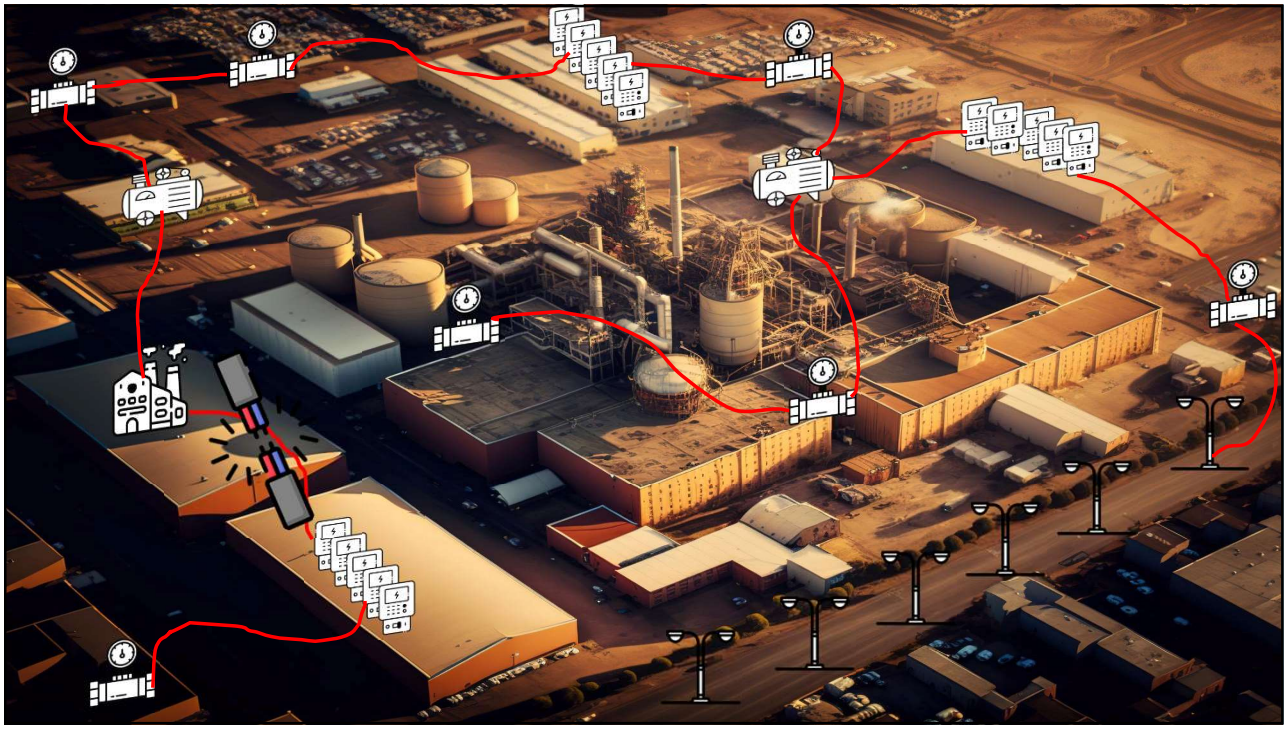
2


The First Step
BridgeThings
NET ZERO
Sustainability
Reuse
Renewables
Resource Efficiency
Fourth
Third
Second
First

3


BridgeThings
System 1
System 2
System 3
System 4
System 5
Energy
Water
Gas
Fuel
Emissions
Steam
System 6
System 7
System 8
System 9
System 10
Renewables
Lighting
Air Conditioning
Temperature
Compressors
Machines
MEASURE

4



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Is there a better way to integrate all utilities?

Trivia: it costed about Rs. 35,00,000 for wiring a 25-acre plant

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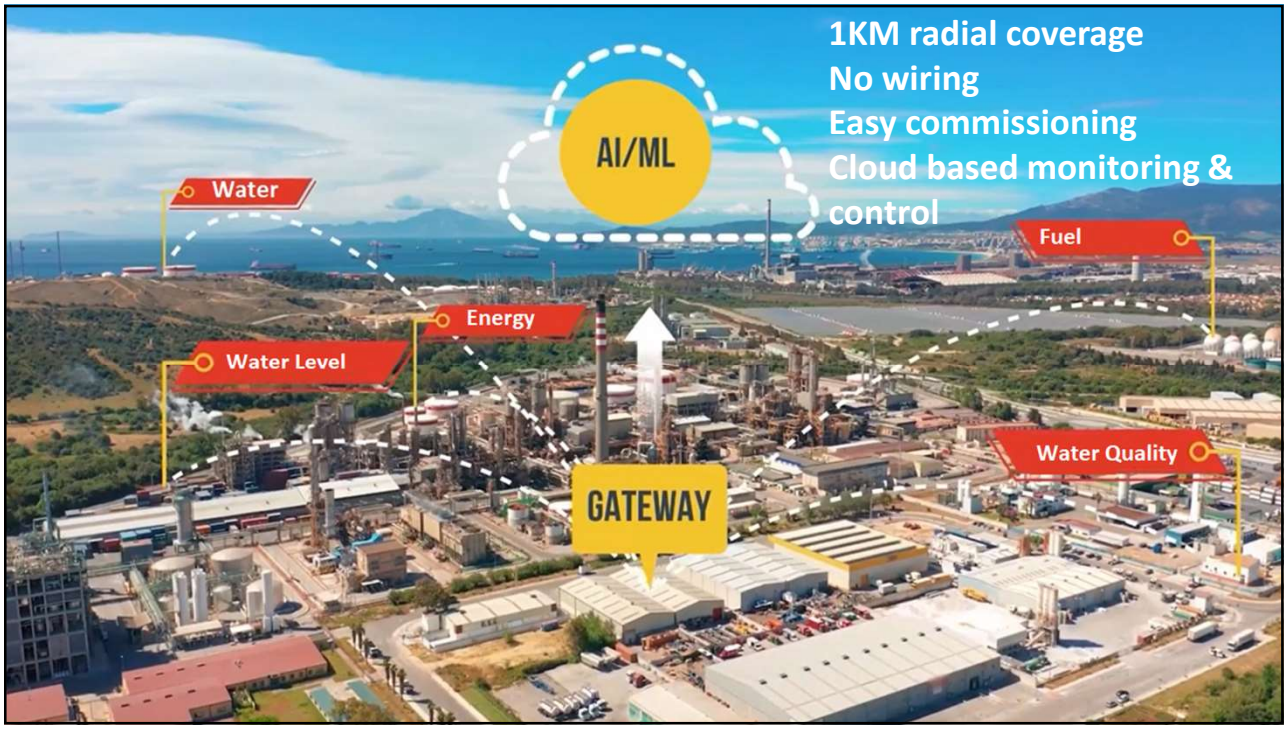

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Outcomes

BridgeThings

Simplification
35% -50% reduced time to commission

Integration
15-20% reduced time for data correlation

Scalability
2x better

Productivity
15-30% productivity improvement

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Installations

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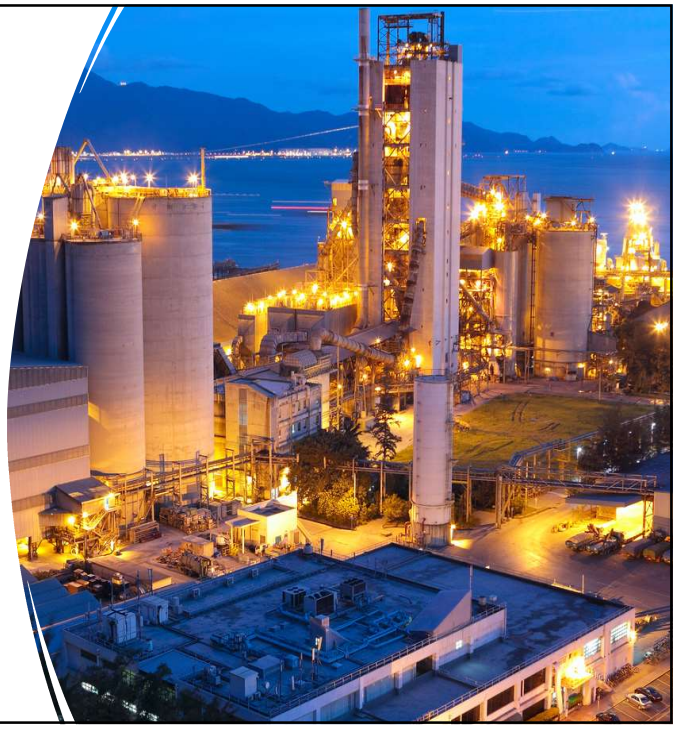
Use Case – Energy management.

- Supports all energy meter makes with RS485.
- Complete configuration from cloud – Simplifies installation
- Supports all electrical parameters that the meters provide – Voltages, Currents, Power, Energy etc…
- Complete Scope 1 Emission report
- Alerts for monitoring specific electrical parameters



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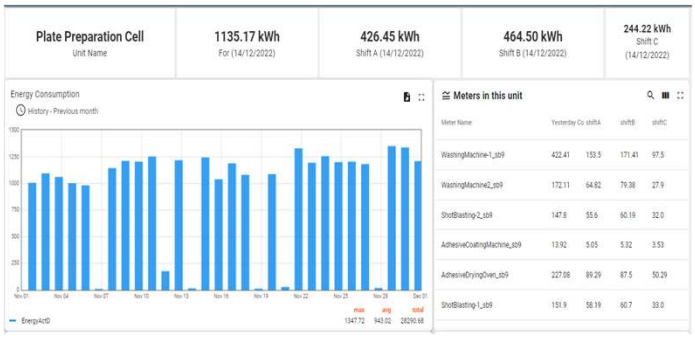
Case Study: Auto component manufacturer

PADI – Energy, Chillers, Water, STP, Natural Gas

SRICITY – Energy, Production, Water– About 90 points

THERVOY* – Executing now, 44 points to start

- Complete wireless infrastructure established with single wireless gateway
- Integration of energy, water, production, STP using a single system.
- Easy to scale in phases.
- Complete analytics about all electrical parameters – energy imbalances, power factor losses, harmonics, energy goal tracking, CO2 emission guidance.



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Use Case – Water Monitoring

- Water flow meter are usually widely distributed across the plant. A wired system is difficult to execute
- Wireless system will help in easy integration and any future deployments – drop in an end node and data will be uploaded
- Helps you increase the number of points that are monitored, helping you to understand your consumption better.

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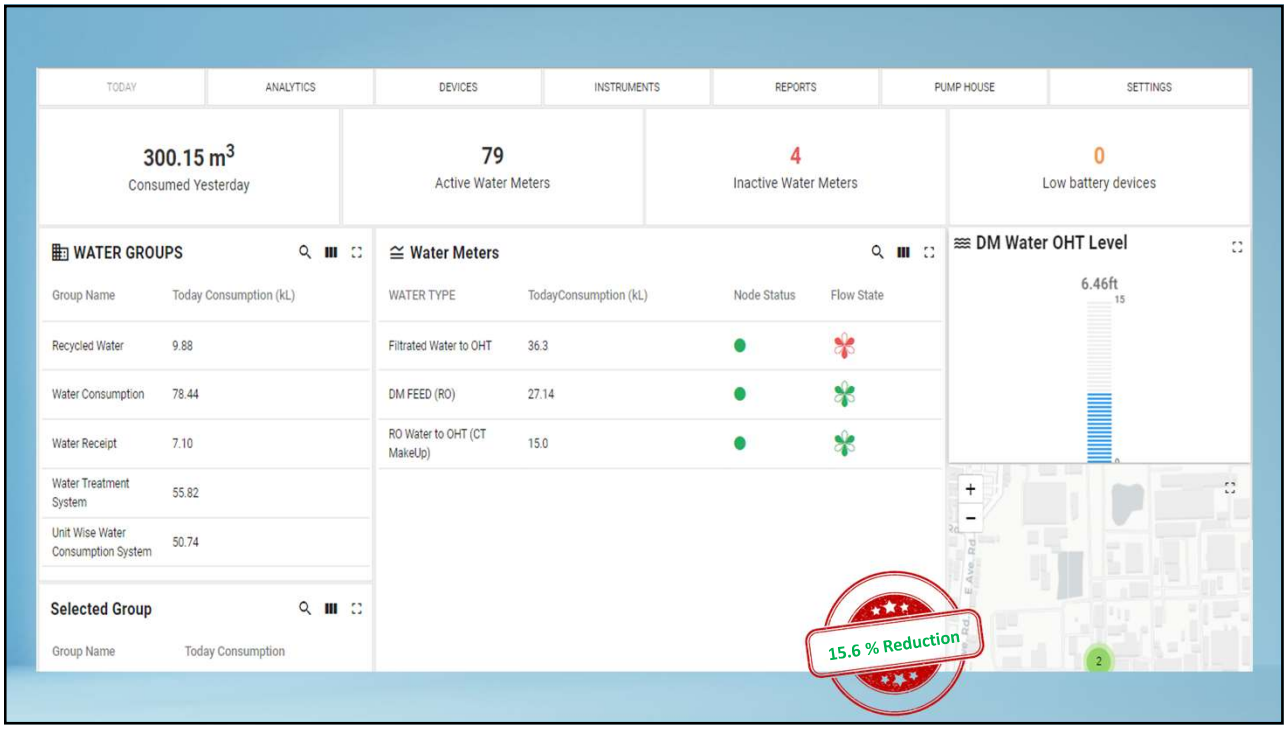
TODAY
ANALYTICS
DEVICES
INSTRUMENTS
REPORTS
PUMP HOUSE
SETTINGS
300.15 m3
Consumed Yesterday
79
Active Water Meters
4
Inactive Water Meters
0
Low battery devices
WATER GROUPS
Group Name
Today Consumption (kL)
Recycled Water
9.88
Water Consumption
78.44
Water Receipt
7.10
Water Treatment System
55.82
Unit Wise Water Consumption System
50.74
Selected Group
Group Name
Today Consumption
Water Meters
WATER TYPE
TodayConsumption (kL)
Node Status
Flow State
Filtrated Water to OHT
36.3
DM FEED (RO)
27.14
RO Water to OHT (CT MakeUp)
15.0
DM Water OHT Level
6.46ft
15
0
15.6 % Reduction

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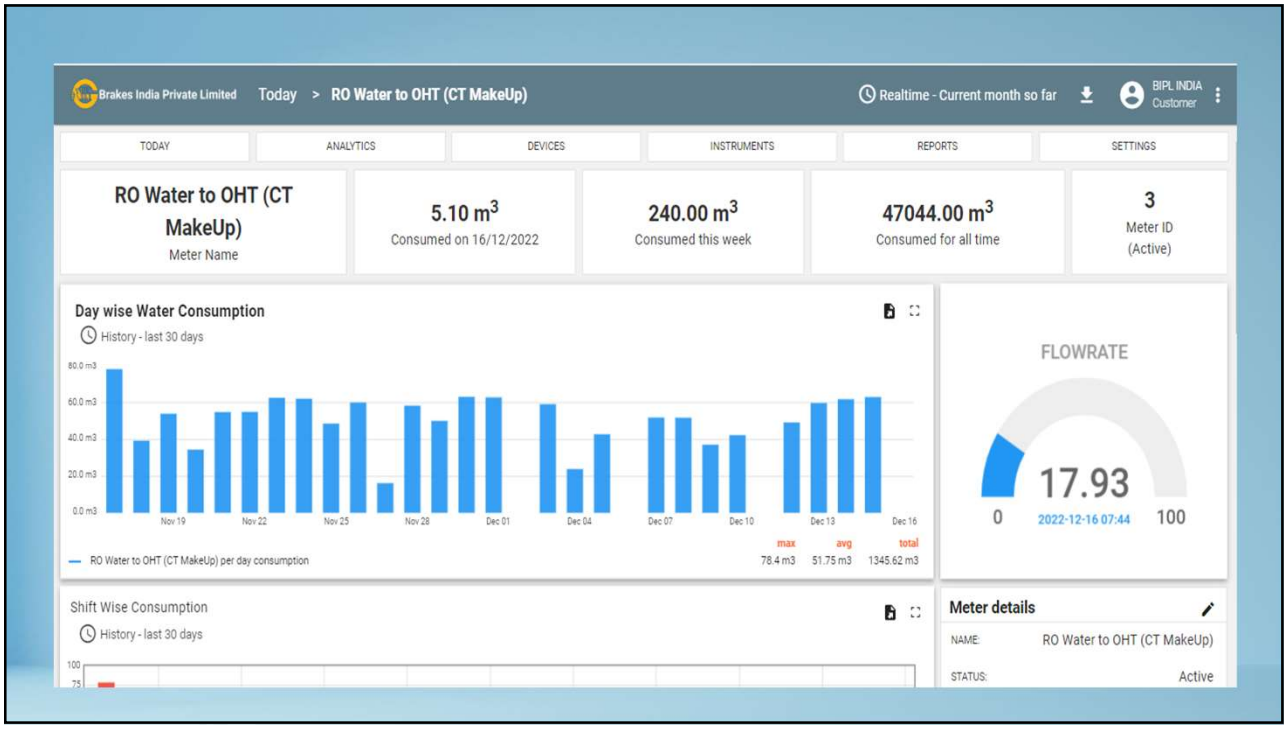
Brakes India Private Limited
Today > RO Water to OHT (CT MakeUp)
Realtime - Current month so far
BIPL INDIA
Customer
TODAY
ANALYTICS
DEVICES
INSTRUMENTS
REPORTS
SETTINGS
RO Water to OHT (CT MakeUp)
Meter Name
5.10 m3
Consumed on 16/12/2022
240.00 m3
Consumed this week
47044.00 m3
Consumed for all time
3
Meter ID
(Active)
Day wise Water Consumption
History - last 30 days
80.0 m3
60.0 m3
40.0 m3
20.0 m3
0.0 m3
Nov 19
Nov 22
Nov 25
Nov 28
Dec 01
Dec 04
Dec 07
Dec 10
Dec 13
Dec 16
RO Water to OHT (CT MakeUp) per day consumption
max
78.4 m3
avg
51.75 m3
total
1345.62 m3
FLOWRATE
17.93
0
2022-12-16 07:44
100
Shift Wise Consumption
History - last 30 days
Meter details
NAME:
RO Water to OHT (CT MakeUp)
STATUS:
Active

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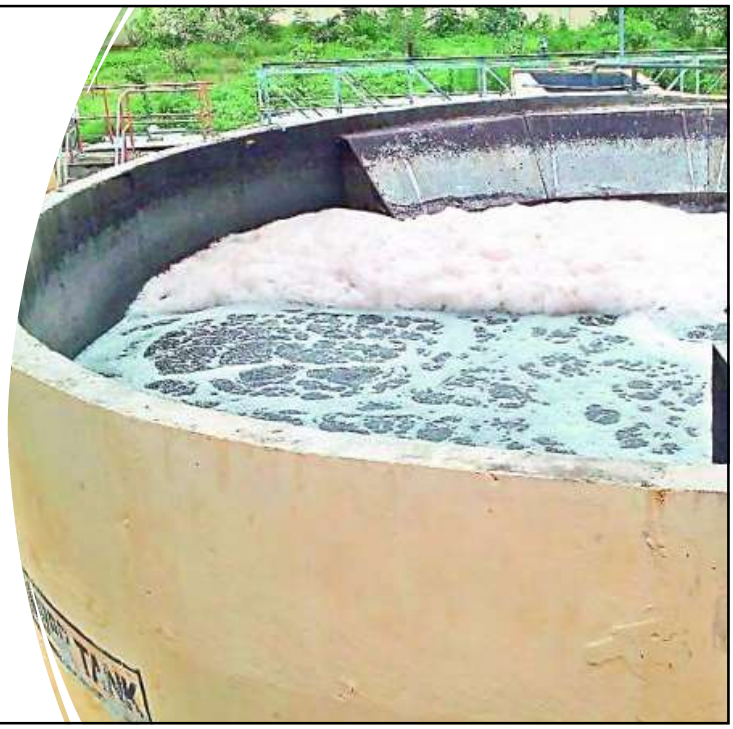
Use case :STP / DM Plant monitoring

- Monitor the input & output volume of water of STP.
- Monitor PH values on continuous basis to avoid overdosing – to save energy, raw material and ensure water quality.
- Monitor water quality parameters to ensure compliance.



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Case Study: 12000 Borewells

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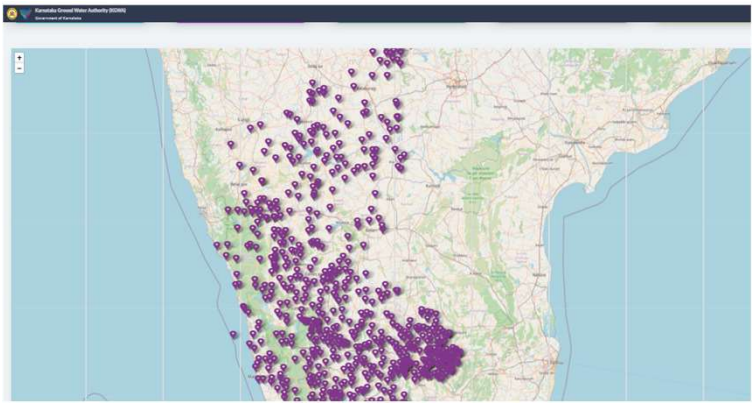
Karnataka	Gujarat	Tamil Nadu	Telangana
1800 locations	1200 locations	1100 locations	1500 locations

- Battery powered sensors that records ground water level – 5 years.
- Executed across 4 different states and now in the process of executing in Odisa, Telangana, Rajasthan, West Bengal and Tamil Nadu
- Strong cloud infrastructure to handle data from 1000's of nodes



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Case Study : Water Quality

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40 Stations across the length of river Ganga measuring water quality continuously

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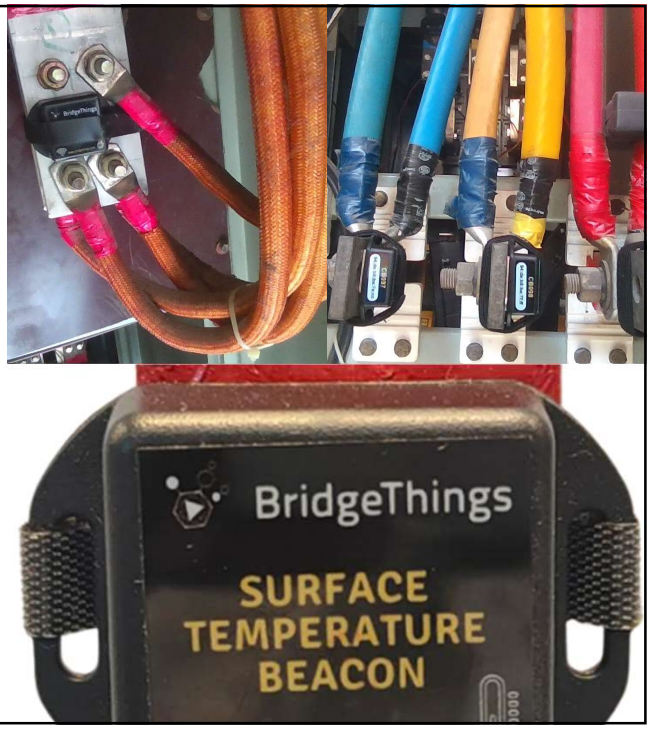
Busbar temperature & humidity monitoring

- Monitor humidity in the HT panels to avoid arc'ing.
- Attach simple wireless battery powered sensors to continuously monitor bus bar temperatures.
- Receive alerts based on threshold set.
- Correlate between current and temperature to ensure safety.



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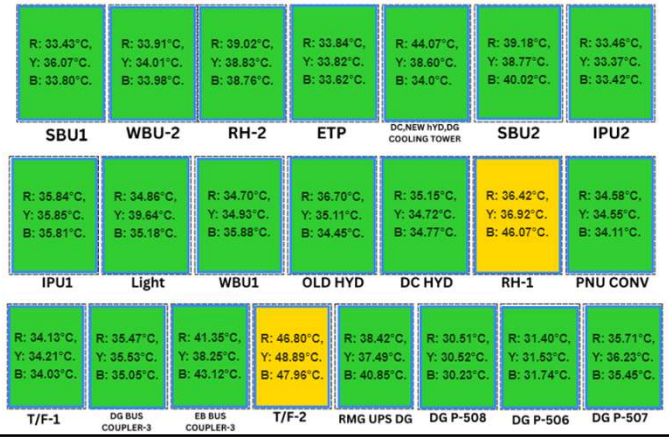
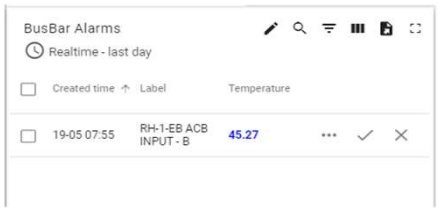
Bus bar temperatures

- Continuous monitoring of bus bar temperatures & humidity with wireless battery powered sensors
- Alerts at different temperature thresholds, will emails/messaging service.
- Correlation with current flowing in the bus bar



Alerts



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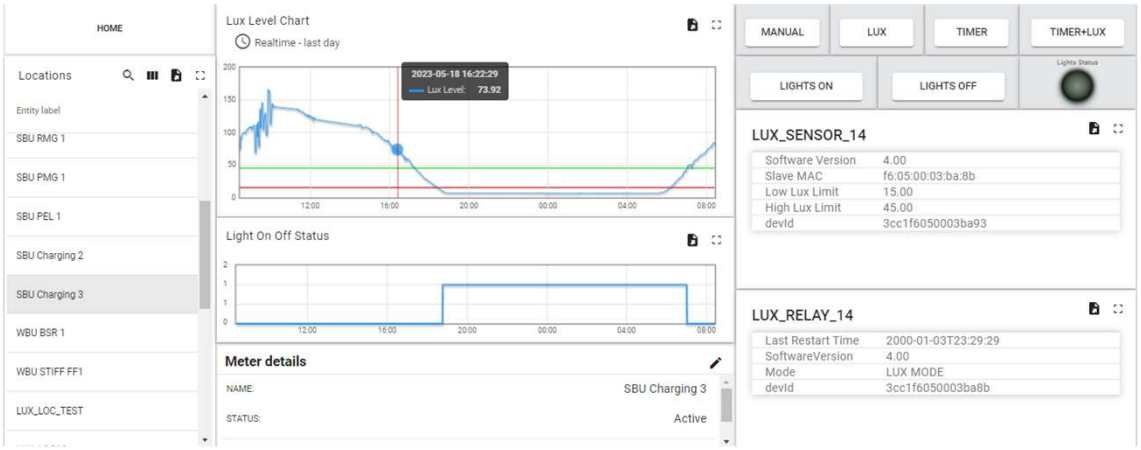
Complete Lighting Control

- Lux & Timer based control – with combined logics.
- Completely wireless control across the plant.



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Use Case – AC Energy Savers

- BridgeThings SPAC energy savers monitors temperature & humidity in a space and control air-conditioners to operate in a comfortable zone.
- Split ACs across the plant/facility can be controlled from a central dashboard like setting a fixed setpoint
- Understanding the cooling pattern of each AC – will help us know if it requires immediate maintenance – filter blockages, lower rate of cooling etc.
- Can control any air-conditioner, irrespective of tonnage and make.
- As our devices are not connected to the AC's directly, there won't be an issue with the warranty

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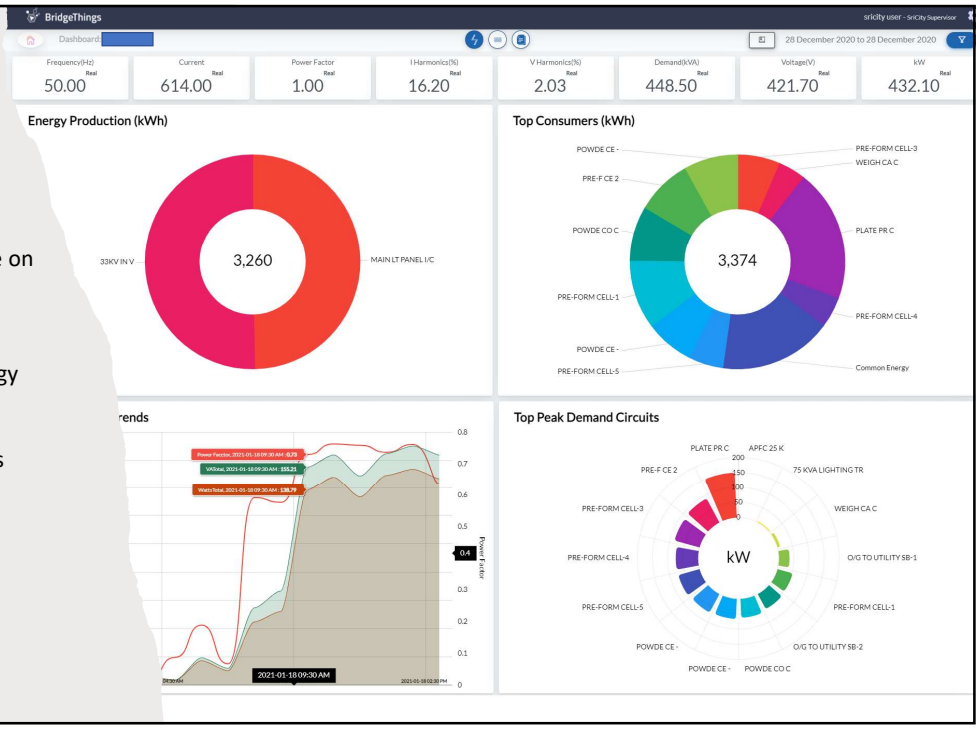
Cloud – based dashboard.

Complete energy consumption data available on the cloud.

Alerts can be configured based on avg. specific energy usage.

Quantify the improvements done at each stage of the production line.

Take steps towards sustainable by improving resource consumption in a phased manner.



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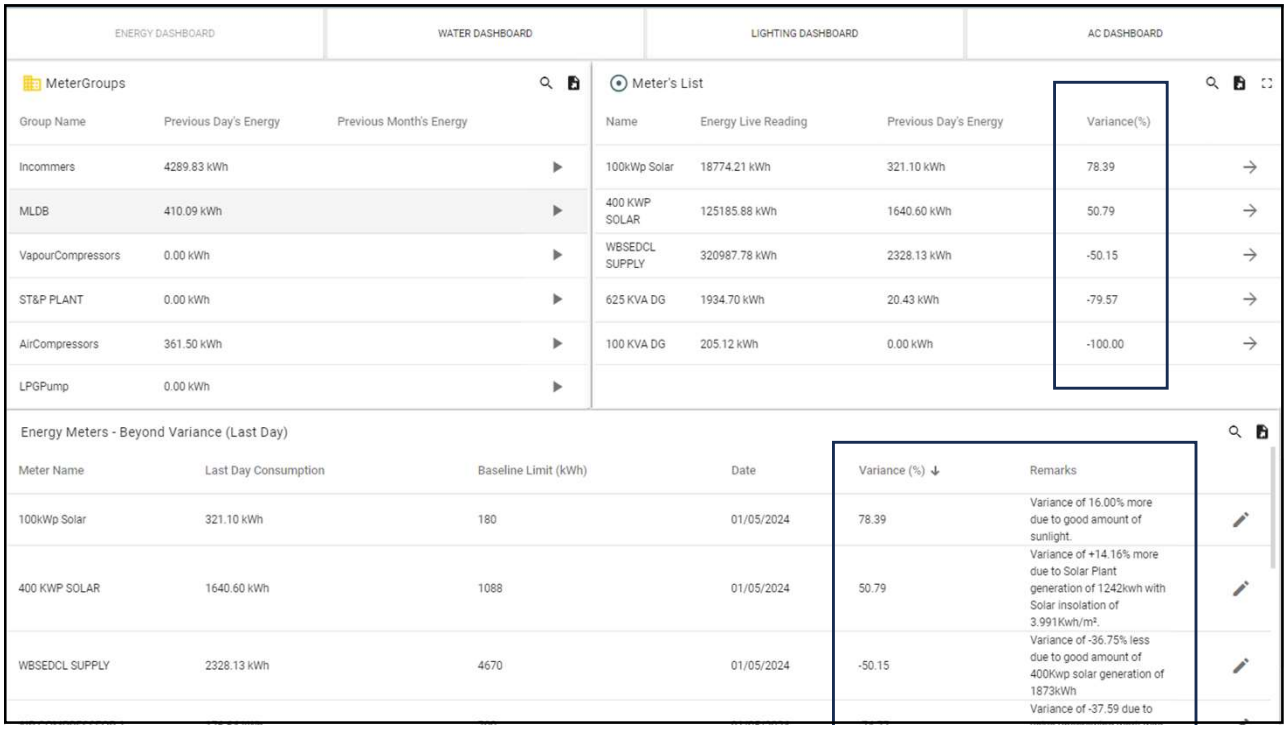

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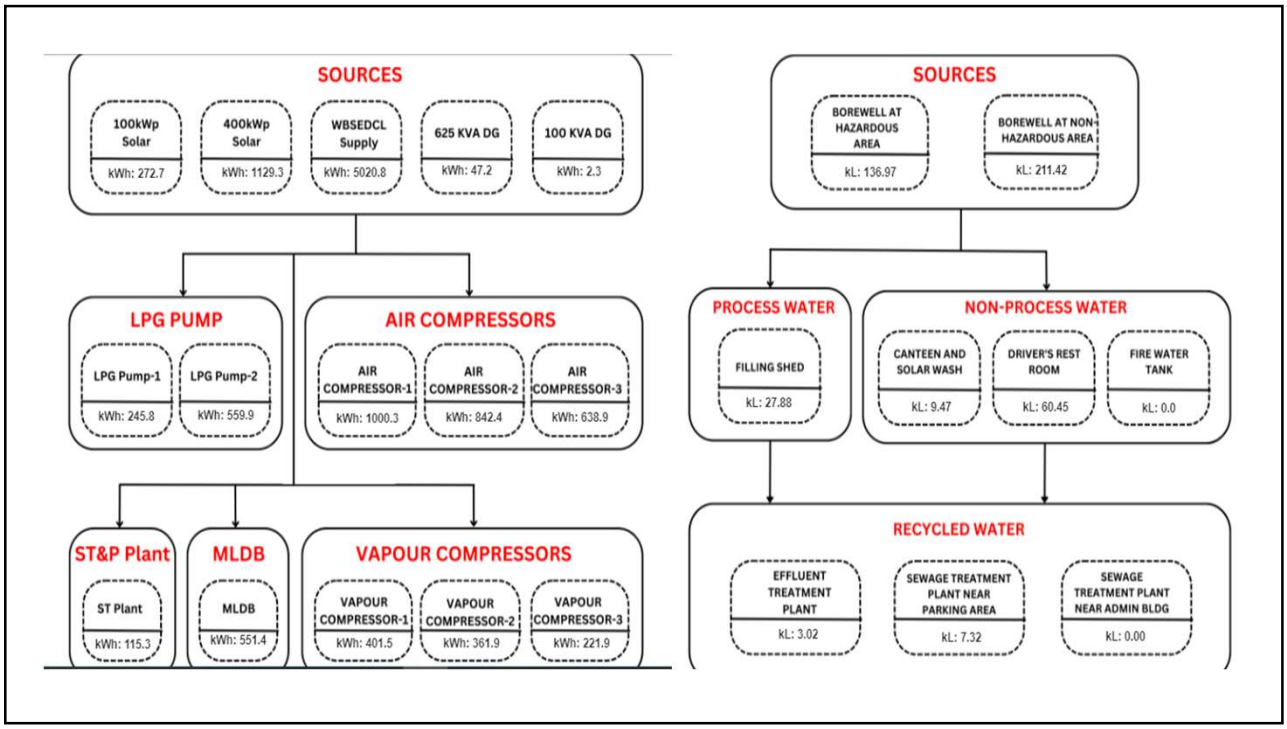
SOURCES
100kWp Solar
kWh: 272.7
400kWp Solar
kWh: 1129.3
WBSEDCL Supply
kWh: 5020.8
625 KVA DG
kWh: 47.2
100 KVA DG
kWh: 2.3
LPG PUMP
LPG Pump-1
kWh: 245.8
LPG Pump-2
kWh: 559.9
AIR COMPRESSORS
AIR COMPRESSOR-1
kWh: 1000.3
AIR COMPRESSOR-2
kWh: 842.4
AIR COMPRESSOR-3
kWh: 638.9
ST&P Plant
ST Plant
kWh: 115.3
MLDB
MLDB
kWh: 551.4
VAPOUR COMPRESSORS
VAPOUR COMPRESSOR-1
kWh: 401.5
VAPOUR COMPRESSOR-2
kWh: 361.9
VAPOUR COMPRESSOR-3
kWh: 221.9
SOURCES
BOREWELL AT HAZARDOUS AREA
kL: 136.97
BOREWELL AT NON-HAZARDOUS AREA
kL: 211.42
PROCESS WATER
FILLING SHED
kL: 27.88
NON-PROCESS WATER
CANTEEN AND SOLAR WASH
kL: 9.47
DRIVER'S REST ROOM
kL: 60.45
FIRE WATER TANK
kL: 0.0
RECYCLED WATER
EFFLUENT TREATMENT PLANT
kL: 3.02
SEWAGE TREATMENT PLANT NEAR PARKING AREA
kL: 7.32
SEWAGE TREATMENT PLANT NEAR ADMIN BLDG
kL: 0.00

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Home > AGENING_FURNACE-09
apar.energy@bridgethings.com
Customer
LIVE METER READING
222262.71 kWh
AGENING_FURNACE-09
0.00 %
Down Time (1/5/2024)
100.00 %
Up Time (1/5/2024)
Run time (%)
Realtime - last 30 days
Run time (%)
ShiftWise Energy Consumption (kWh)
History - last 7 days
shiftA
shiftB
avg
1312.62
1084.91
Line Currents
History - last 7 days
Phase Voltages
History - last day

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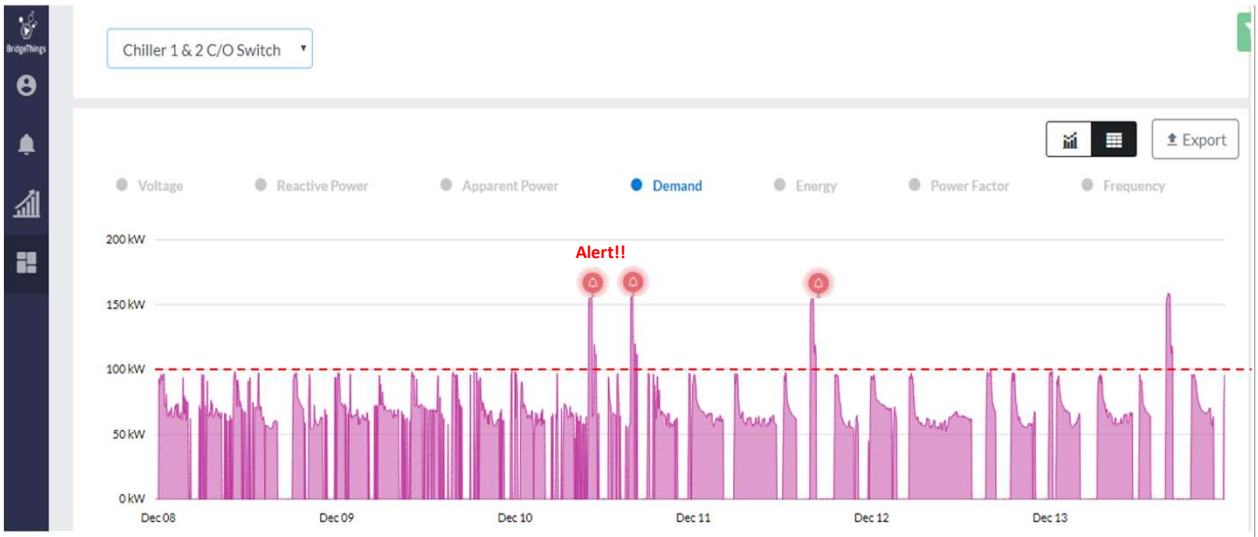
Load wise monitoring with alerts – identifying inefficiencies



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Few Customers

BridgeThings

APAR

IndianOil

Brakes India Limited

asianpaints

Pidilite

STAR CEMENT

HORMANN

SHERWIN WILLIAMS

APOTEX PHARMACHEM

THAPAR INSTITUTE

HONDA

TITAN COMPANY

Bisleri

Brookfield Renewable

Huhtamaki

ilabs

DR. REDDY'S

ADITYA BIRLA GRASIM

BMM POTENTIAL IN TONNES

JSW

Chettinad cement

Nadhi Bio Products

NHP

AURIGENE PHARMACEUTICAL SERVICES

NAGARJUNA NACL

Coca-Cola

Meenakshi Your dreams, Our spirit

Supreme People who know plastics best

Berger Paints Your Imagination

TATA MOTORS

IBM

Cipla

NITIN Nitin Spinners Limited

TAJ Hotels Resorts and Palaces

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BridgeThings

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