



2025 Presentation

# WNE BEMS

Building Energy Management System





# Innovation to Efficiency





2018: Established in Singapore

# 2025 WNE Footprint



Managed

**37+**

building & utility

Integrated with

**90+**

meter types and models

With

**14,000**

meters currently managed on platform

Scale up to

**300,000**

meters by 2025

Approx.

**336,000**

data points per day (24 data points per meter)



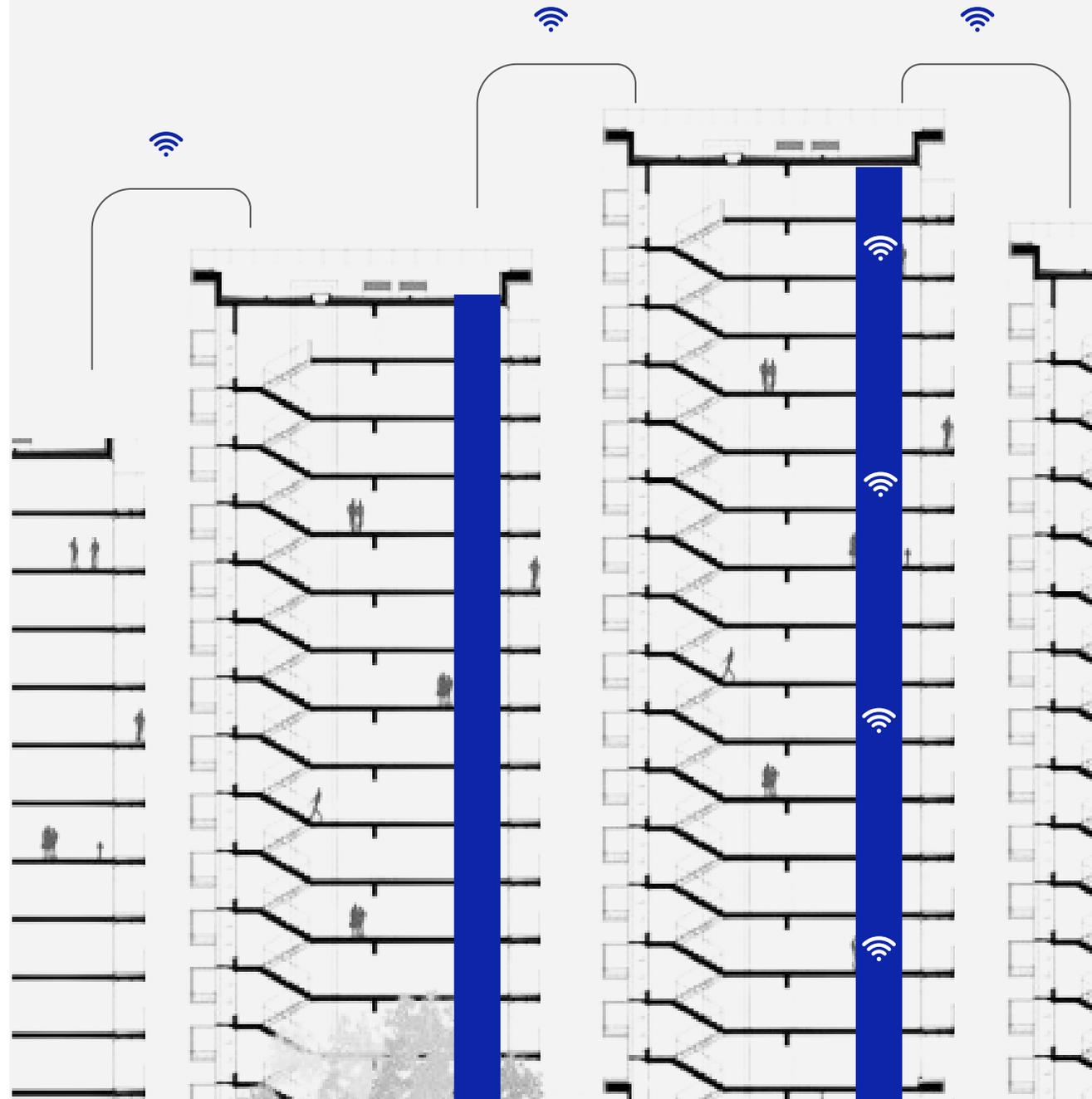
1.

Hardware Solutions

2.

Software Solutions

# To Efficiency Buildings



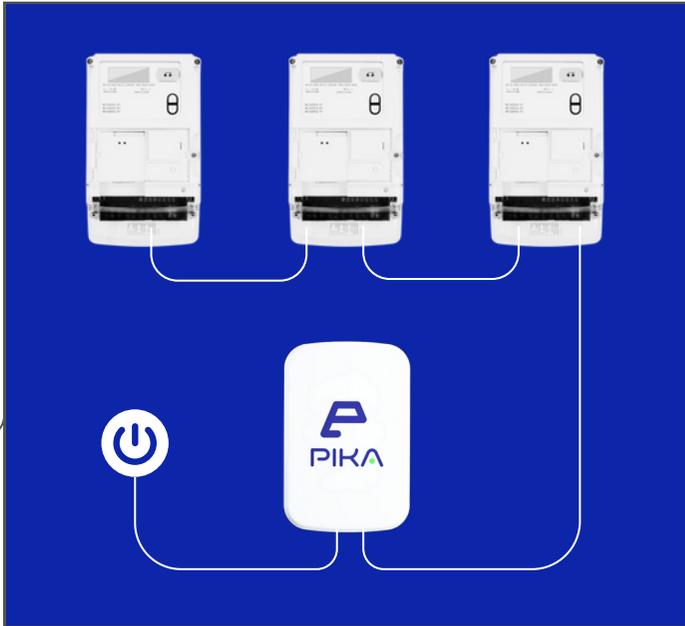
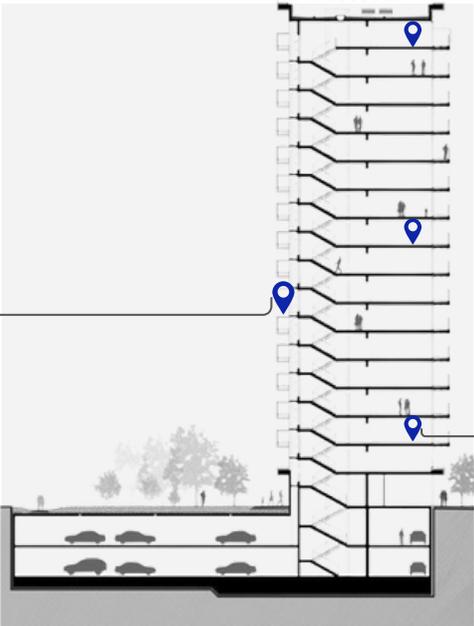
1.

### PIKA - IoT Device

*From RS485 Modbus to LoRaWAN/4G*

*Entire Building Energy Flow*

*IP68 & International Certifications*



Integrated with

# 24+

meter types and models  
sensors  
solar panels

Only requires

# RS485 Modbus

protocol

Just

# Plug and Play

find more details by connecting with  
[info@wnesolutions.sg](mailto:info@wnesolutions.sg)

Support

# Daisy Chain

Up to 8 meters

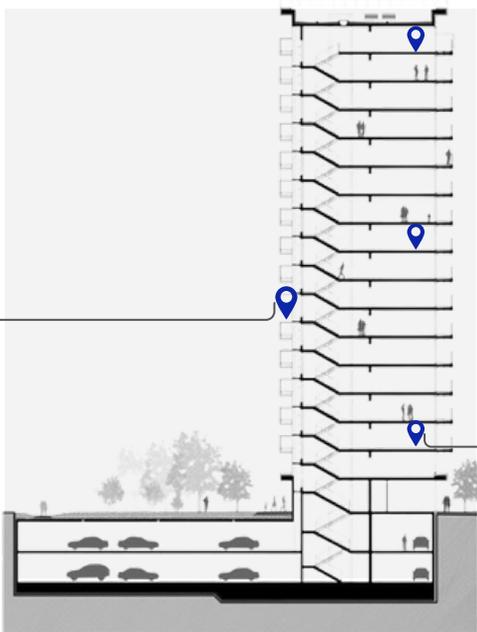
1.2

**MIU - Water Meter Interface Unit**

*Read pulse data from water meter*

*LoRaWAN / NB-IoT Communication Type*

*IP68, IK09 & International Certifications*



Collection data with

**High Accuracy**

in real-time

Ensure

**Cost Effective**

by installation & replacement

Up to

**10 years Battery Life**

transmission interval is 3 times/day

Transmit & receive data over

**LPWAN**

technology

2.

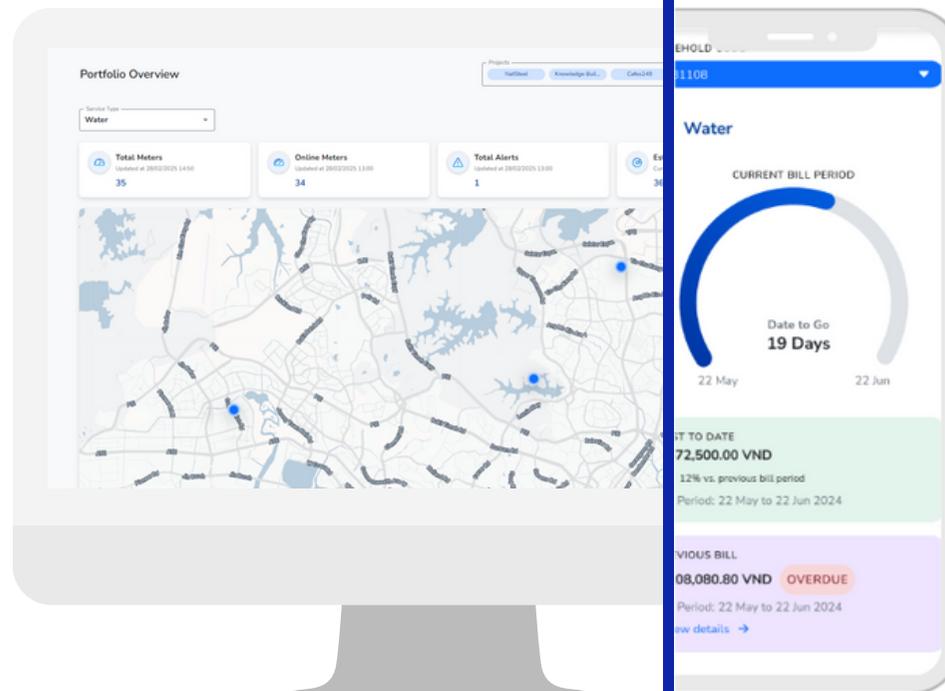
## 8TEN - Building Energy Management System (BEMS)

Management Portal

For Tenants

For Building Operators

Customer Portal





2.2

## 8TEN - BEMS Key Benefits

Collection data with

### **High Accuracy**

in real-time

Seamless manage

### **Portfolio Buildings**

in one system

Streamline

### **Billing & Invoicing Process**

by one-time setting

Allow

### **Proactive Alerts**

without manual tracking

Customizable the

### **Widgets & Dashboards**

for efficiency

Provide

### **Tenants Mobile App**

ensures seamless, and transparent operations



# PORTFOLIO BUILDING OVERVIEW PAGE

## 1. Solutions

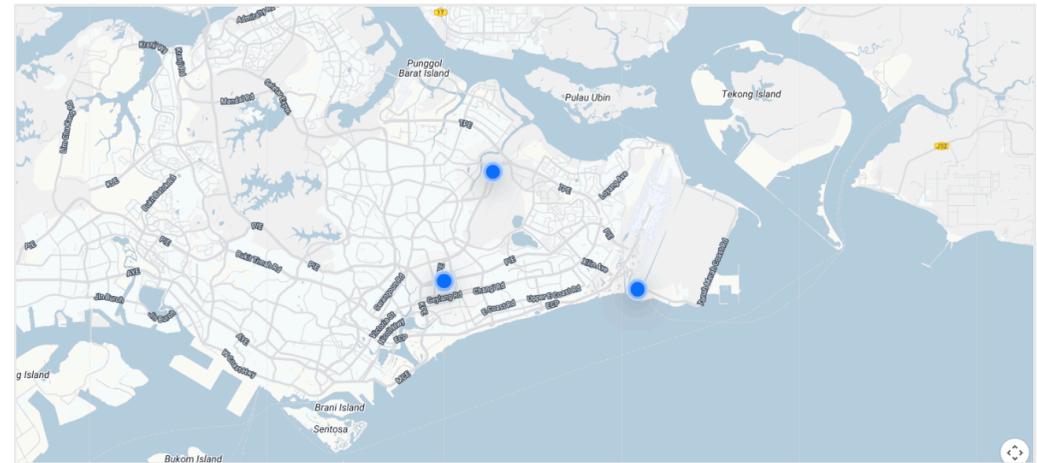
### Visualization

- Displays the location of multiple buildings and allows operators to drill down into each building.
- Provides an overview of key performance indicators for each building.
- Compares energy usage across multiple buildings against the average usage line.

## 2. Benefits

- **Enhances Operational Efficiency:** Providing a clear overview of multiple buildings in one interface.
- **Enables Data-driven Decision-making:** Through real-time insights into key performance indicators.
- **Identifies Energy Inefficiencies:** By comparing usage trends against the average, allowing for proactive optimization and cost reduction.

## 3. How It Works



# MAP VIEW

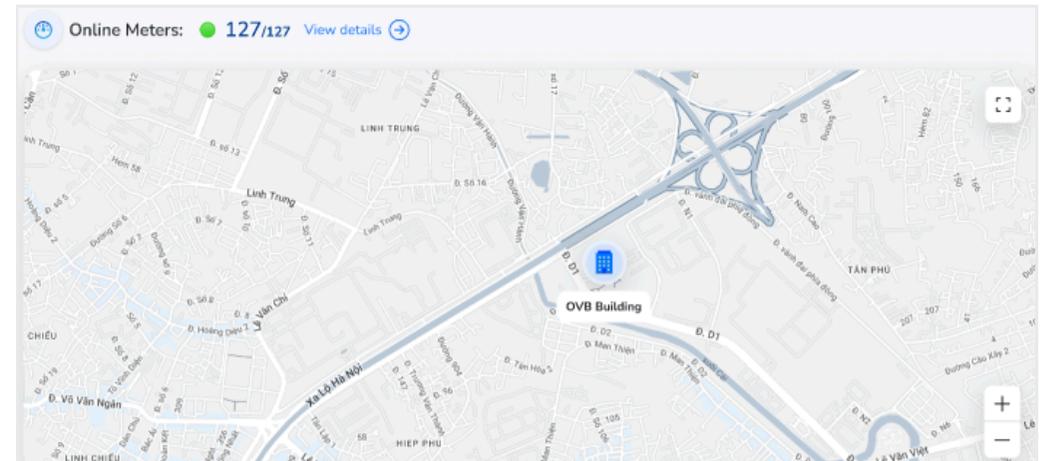
## 1. Solutions

- Visualization: Displays a comprehensive map view of the building by floors.
- Navigation: Users can navigate through individual units and manage them.
- Revenue Insights: Easily track the revenue generated by each household.

## 2. Benefits

- Efficient Management: Simplifies the management of occupancy and resources.
- Issue Resolution: Easier identification and resolution of issues.
- Enhanced Usability: Intuitive interface improves user experience.

## 3. How It Works



## 1. Solutions

### Usage Chart

- Detailed Visualization: Track energy usage by days, months, and years, as well as within specific time ranges.
- Peak Consumption Identification: Recognize periods of peak energy consumption.
- Loss Data Detection: Identify energy loss data by month, day, and hour.
- Incident Identification: Detect and analyze abnormal incidents.

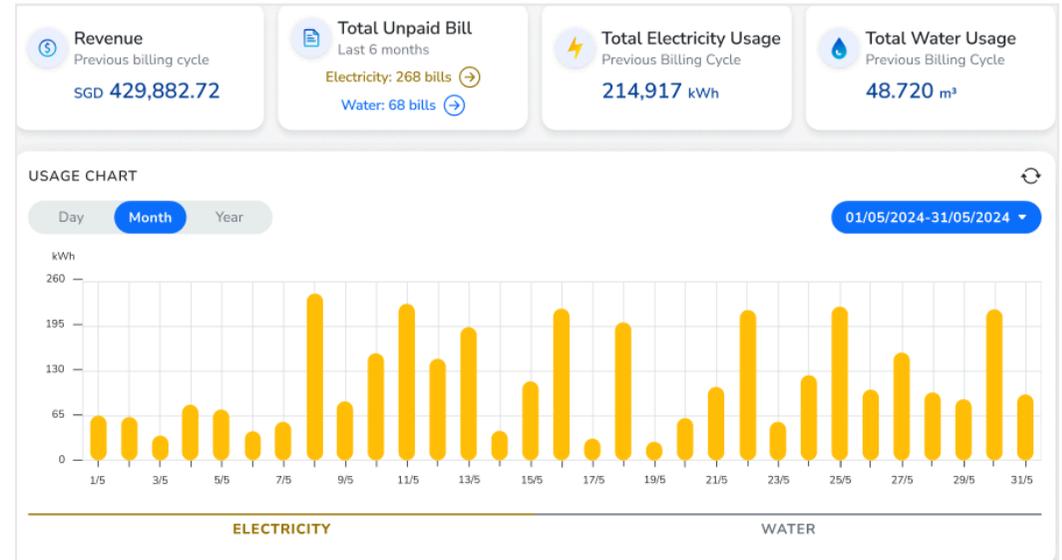
### Building Performance Overview

- Comprehensive Indicators: Get an overview of key building indicators such as total revenue, billings, and energy usage.

## 2. Benefits

- Operational Efficiency: Streamlines monitoring and decision-making processes.
- Cost Savings: Identifies peak consumption periods to optimize energy usage.
- Proactive Management: Alerts enable timely intervention to prevent issues.

## 3. How It Works



## PERFORMANCE OVERVIEW

## 1. Solutions

- Database: Stores tenant details, household locations, household devices, and payment history.
- Search and Filter: Allows searching for households by building or filter usage by services.

## 2. Benefits

- Streamlined Processes: Centralized data management reduces manual tasks.
- Effective Communication: Ensures prompt and clear communication with tenants.
- Improved Satisfaction: Efficient management leads to higher tenant satisfaction.

# TENANTS MANAGEMENT

## 3. How It Works

Households

TTG - Lancaster | Househ... | Enter household code, apartment, own... | EN |

	Building	Service			
	All	All			
	CUSTOMER NAME	EMAIL	PHONE	TYPE	USAGE
18-01B	KAZUHIKO SUGIMURA	sugimura@kddivietnam.com.test			0 m <sup>3</sup>
04-Giặt úi	Công ty CP Đầu Tư An Thủy Anh	baql@lancaster.com.vn.test			861.740 m <sup>3</sup>
G - 7Eleven	CÔNG TY CP SEVEN SYSTEM VIỆT NAM	my.tnt@ssv.com.vn.test			1 m <sup>3</sup> 1.830 kWh
01-Deaura	Tự Mỹ Ngô	spg-acc010@spg-sportsgear.com.test			0 m <sup>3</sup> 0 kWh
02-Deaura	CHI NHÁNH VENESA HỒ CHÍ MINH CÔNG TY TNHH VENESA	trangntm1@venesa.vn.test			3 m <sup>3</sup> 1.374 kWh
0304 - Việt Úc	CÔNG TY CP THỦY SẢN VIỆT ÚC CN TP.HCM	dieutran@vietuc.net.test	+84774011187		615 kWh
0303-Việt Úc	CÔNG TY CP THỦY SẢN VIỆT ÚC CN TP.HCM	dieutran@vietuc.net.test	+84774011187		545 kWh
0301 - Lotus	PHÒNG KHÁM ĐA KHOA HOA SEN	account@lotusclinic.com			0 m <sup>3</sup>

CHI NHÁNH VENESA HỒ CHÍ MINH CÔNG TY TNHH VENESA  
Hồ Chí Minh, Việt Nam

Overview | Billing | Services

HOUSEHOLD OWNER

Information

Customer ID: LCB04  
Name: CHI NHÁNH VENESA HỒ CHÍ MINH CÔNG TY TNHH VENESA  
Email: trangntm1@venesa.vn.test  
Send Welcome Email

HOUSEHOLD

Information

Household Address  
02-Deaura, Lê Thánh Tôn, 1, Hồ Chí Minh, Việt Nam

Household Type: Business  
Household Code: LCB04  
Bill Cycle Date: 22

USAGE 30/6/2024 - 30/7/2024 Day Month Year Water

Reset Usage

INVOICES

MONTH	TOTAL AMOUNT	STATUS
07/2024	34,433,930.00 VND	•

# 1.

## Solutions

- Centralized System: Monitors and manages assets e.g. smart meters, and sensors.
- Performance Tracking: Tracks asset performance and users can schedule maintenance, and plan for replacements or upgrades.

# 2.

## Benefits

- Resource Optimization: Identifies underutilized or redundant assets.
- Maintenance Efficiency: Proactive maintenance reduces downtime and costs.
- Enhanced Monitoring: Comprehensive asset overview improves operational efficiency.

# ASSETS MANAGEMENT

# 3.

## How It Works

Meters

AMK Building | Household... | Enter household code, apartment, own... | EN

Service	MODEL	SERIAL	OWNER NAME	POSITION	HOUSEHOLD CODE	STATUS	ALERT 24H	LAST VALUE	CALIBRATION	LAST UPDATED	
ELECTRIC	EFU-BFM118Ex	L1P4	Example Cai Fan Store	D Wall	L1P4	●	0	33.250 kWh	0	28/07/2024 21:00:06	👁️ 📄 🗑️
ELECTRIC	EFU-BFM118Ex	STAMK-DB7-1_6-3_L2P12	Example Cai Fan Store	Kitchen	L2P12	●	0	0 kWh	0	28/07/2024 21:00:10	👁️ 📄 🗑️
ELECTRIC	EFU-BFM118Ex	STAMK-DB7-1_6-3_L2P13		Kitchen	L2P13	●	0	0 kWh	0	28/07/2024 21:00:10	👁️ 📄 🗑️
ELECTRIC	EFU-PM123B-40mA	Electric Main Incoming	Main Incoming		Main Incoming	●	0	9,562.720 kWh	0	28/07/2024 21:00:10	👁️ 📄 🗑️
ELECTRIC	EFU-BFM118Ex	STAMK-DB7-1_6-3_L3P12		Kitchen	L3P12	●	0	0 kWh	0	28/07/2024 21:00:07	👁️ 📄 🗑️
ELECTRIC	EFU-BFM118Ex	STAMK-DB7-1_6-3_L1P1	STE		L1P1	●	0	300.140 kWh	0	28/07/2024 21:00:11	👁️ 📄 🗑️

Sensor

PESFarm - Paradise Eco Smart f... | Farm | Enter household code, apartment, owner email, name | EN

SENSOR SERIAL	DEVICE SERIAL	NEW VALUE	TYPE	STATUS	UPDATED AT	ACTION
C_CNC1T2_Root_Moisture	00000000aa400037	0	MOISTURE	●	16:33 30/07/2024	👁️ 📄 🗑️
C_CNC1T2_Root_Temp	00000000aa400037	15.7 C	TEMPERATURE	●	16:33 30/07/2024	👁️ 📄 🗑️
A_L2C3T2_Root_Temp	00000000aa40002E	21.6 C	TEMPERATURE	●	16:35 30/07/2024	👁️ 📄 🗑️
A_L2C3T2_Root_Moisture	00000000aa40002E	0	MOISTURE	●	16:35 30/07/2024	👁️ 📄 🗑️
A_L1C3T2_Root_Moisture	00000000aa400099	0	MOISTURE	●	16:40 30/07/2024	👁️ 📄 🗑️
A_L1C3T2_Root_Temp	00000000aa400099	22.6 C	TEMPERATURE	●	16:40 30/07/2024	👁️ 📄 🗑️
A_L1C3T2_PPPD	00000000AA9001BA	45	PAR	●	16:38 30/07/2024	👁️ 📄 🗑️
A_L2C3T2_PPPD	00000000AA300182	29	PAR	●	16:36 30/07/2024	👁️ 📄 🗑️
C_L5_Return Tank EC	00000000AA300091	0.23	ELECTRICAL_CONDUCTIVITY	●	16:42 30/07/2024	👁️ 📄 🗑️
C_L5_Return Tank Temp	00000000AA300091	17.6 C	TEMPERATURE	●	16:42 30/07/2024	👁️ 📄 🗑️

## 1. Solutions

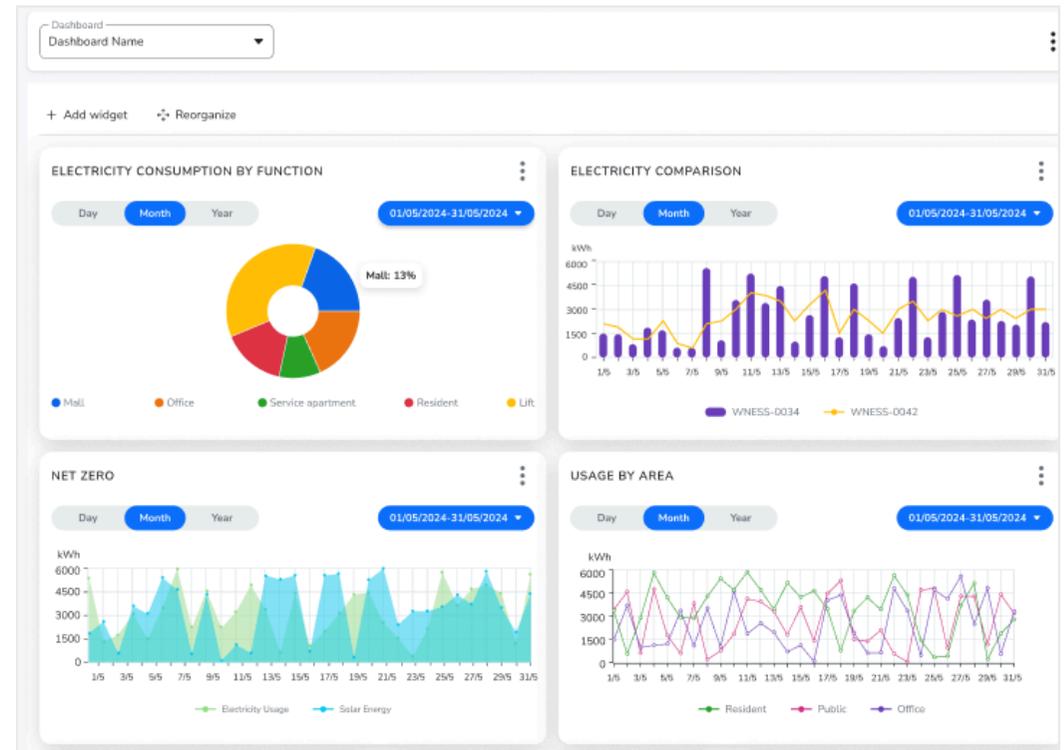
- **Advanced Analytics Platform:** Centralized system for data aggregation, analysis, and visualization.
- **Leakage Detection:** Provides a leakage chart to identify and quantify leakage rates from specific meters.
- **Customizable Dashboard:** Allows users to create personalized dashboards and widgets to manage energy based on their specific needs.

## 2. Benefits

- **Data Visualization:** Visual representation of data for easier interpretation and analysis.
- **Immediate Leakage Detection:** Quickly identifies and addresses leakage issues to prevent resource wastage.
- **Informed Decision-Making:** Data-driven insights support strategic planning and decision-making.

## DATA ANALYSIS

## 3. How It Works



# BILLING & INVOICE & PAYMENT

## 1. Solutions

- Automated Generation: Bills are generated automatically from consumption data.
- Customization: Billing parameters can be customized to meet specific requirements.
- Comprehensive Reporting: Easily download for billing reports.
- Delivery: Invoices are sent directly to end-users via email or accessed through the app.

## 2. Benefits

- Accuracy: Ensures precise and consistent billing.
- Efficiency: Reduces the time and effort required for manual billing.
- Convenience: Easy access to bills and payments through the platform.

## 3. How It Works

The screenshot displays the WNE billing system interface. The top section shows a bill summary for a customer with ID LCB1108, including the bill period (22/04/2024-22/05/2024) and the total amount due (SGD 124.63). Below this is a table of charges:

Time of Use	Usage (KWh)	Rates (SGD/kWh)	Amount (SGD)
At all times	50.000	1.00	50.00
At all times	50.000	1.10	55.00
At all times	8.370	1.15	9.63

The bottom section shows the 'Edit Bill Calculation' screen, which allows users to configure billing parameters. It includes fields for Service (Water), Bill Calculation Code, Description, Household Type (All), and Ranges (From (m³) and Price (SGD)). The Ranges section is currently set to 0 m³ at 2.75 SGD. The Formula section is set to VAT (%).

# TENANT/USER APP

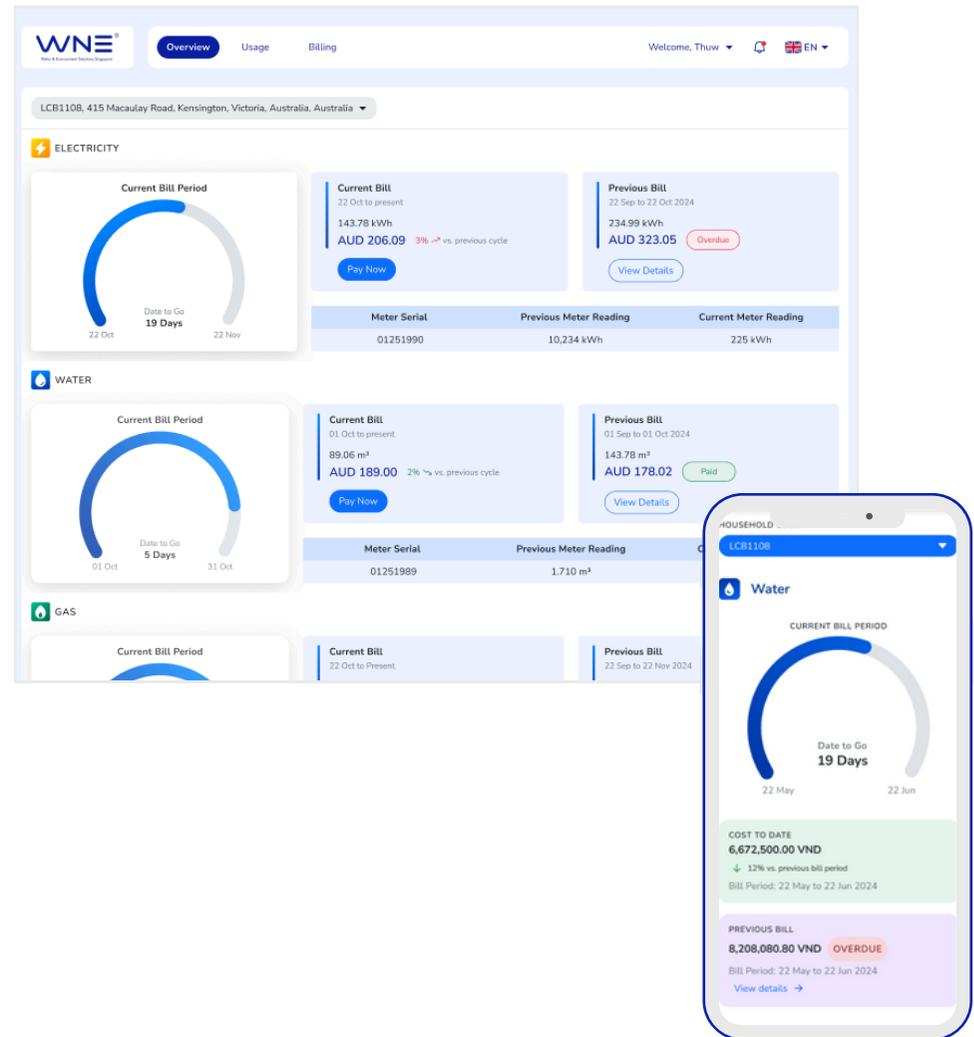
## 1. Solutions

- Access: Tenants can view and download invoices, and make payments directly through the app.
- Account Management: Tenants can update their contact information and access customer support.
- Communication: Streamlines communication between tenants and management.

## 2. Benefits

- Transparency: Provides clear and transparent billing information.
- Convenience: Simplifies the payment process for tenants.
- Enhanced Experience: Improves overall tenant satisfaction and engagement.

## 3. How It Works





# Request a Demo

*To gain Energy monitoring, Sustainability, Green Building Value Innovation, Reliable and Experienced*



E: [info@wnesolutions.sg](mailto:info@wnesolutions.sg)

[www.wnesolutions.sg](http://www.wnesolutions.sg)