

ENERGY AUDIT

Design efficiency

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Sustainable Energy Solutions



01 What is Energy Audit?

02 Why is Energy Audit important?

03 How is Energy Audit being conducted?

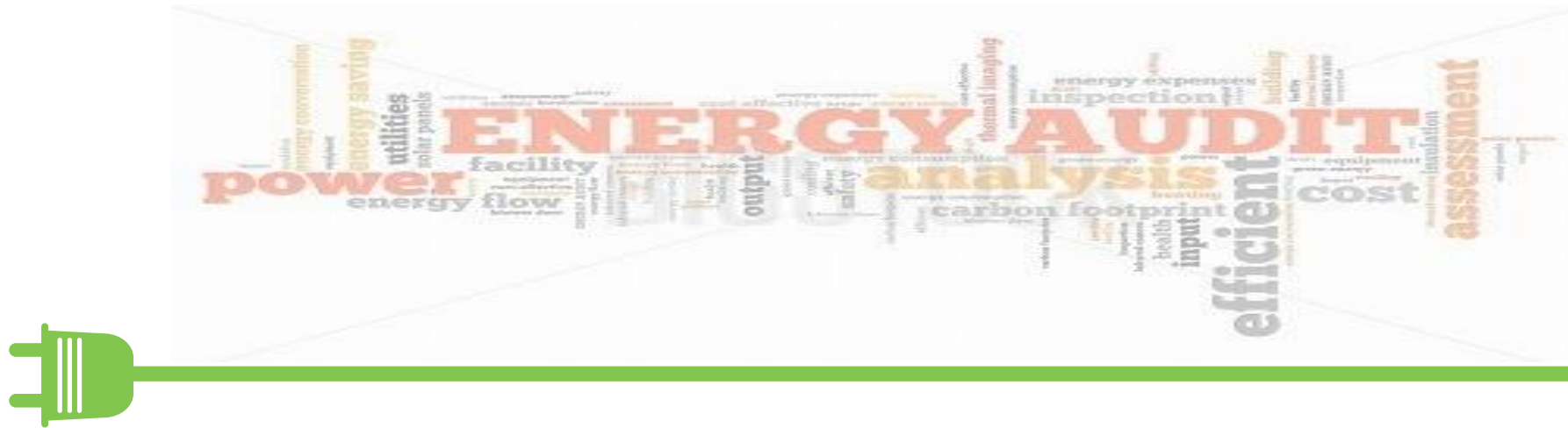
04 Why We are different?

05 What We propose offer?

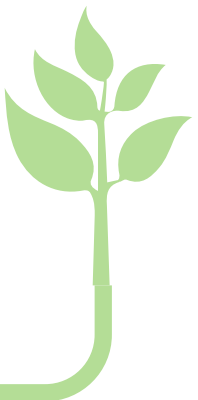
06 Our Energy Solutions Partners

What is Energy Audit?

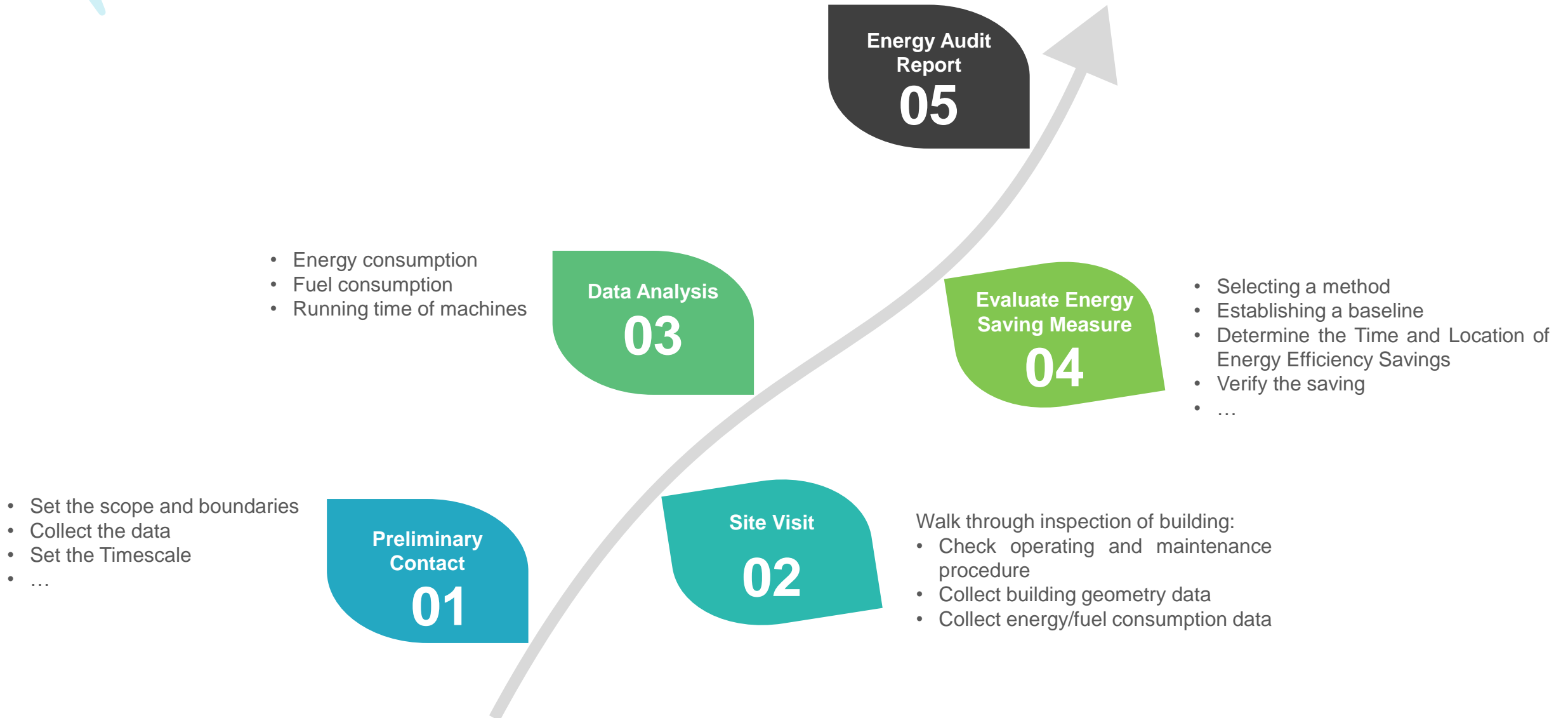
An energy audit is an inspection survey and an analysis of energy flows for energy conservation in a building. It may include a process or system to reduce the amount of energy input into the system without negatively affecting the output. In commercial and industrial real estate, an energy audit is the first step in identifying opportunities to reduce energy expense and carbon footprint.



Why is Energy Audit important?



How is Energy Audit being conducted?



Why We are a different Energy Audit Engineering Company?

Customization of Energy Audit

Not every buildings are design and operate in the same way!
We customize the energy audit process for every building differently

Reduce unnecessary technical data and calculations

The audit report must be able to put into practice easily and actual savings can be established immediately

Combine engineering “know how” into practical implementation

Reduce energy in an easy and yet effective manner, which will transform into a quick implementation and the management will expect a quick “can see” result every month

Reduce energy wastage due to human factors

Which is one important contribution to wasting energy and money, an all other Energy Audit engineering company will not foresee or practice



Enhance and improve maintenance process

Make the process more efficiency and establish a long term sustainable energy saving benefits to the stakeholders.

Experienced energy Audit Team

A team of engineers with many years of facilities maintenance experience and effectively implement Audit recommendations

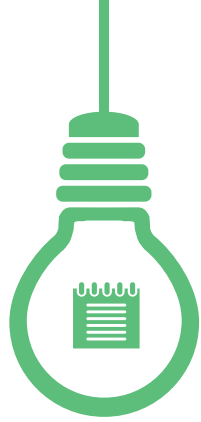
Green certificates

All energy savings process recommended will form part of the LEEDS/DeCarbonization Process for future energy savings operation

What We propose offer?



Chillers/AHU and BMS operation data and performance design



Chilled water quality evaluation and test



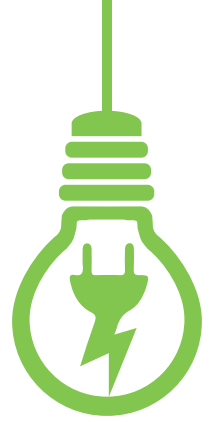
Chilled/Condensing water mechanical control performance audit



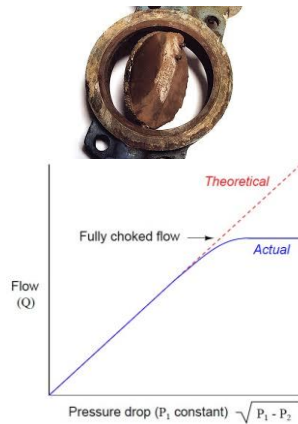
Kitchen equipment operation and energy audit



Operation energy wastage audit



Power/Lightings efficiency and energy consumption audit



Deep Analysis of MEP System Performance (Optional)

Smart lightings control system

Chilled Water
Performance Data Logger Assessment

Chilled Water Conditions
Analysis

Chillers Equipment
Performance Evaluation

Energy Consumption Hub Data
Monitoring and Evaluation





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Smart Lightings Control System

Features & Benefits

Wireless Communication

- Reduce Cabling Cost
- Reduce Installation Time
- Hassle-free Installation
- Reduce Cabling Cost
- Reduce Installation Time
- Hassle-free Installation

Cloud-based System

- No worrying about Database maintenance
- No loss of data
- Multi-Site Control & Monitoring
- Multiple Users able to access anytime & anywhere

Energy Optimization

- Real-time Occupancy Detection
- Daylight Regulation
- Time Schedule

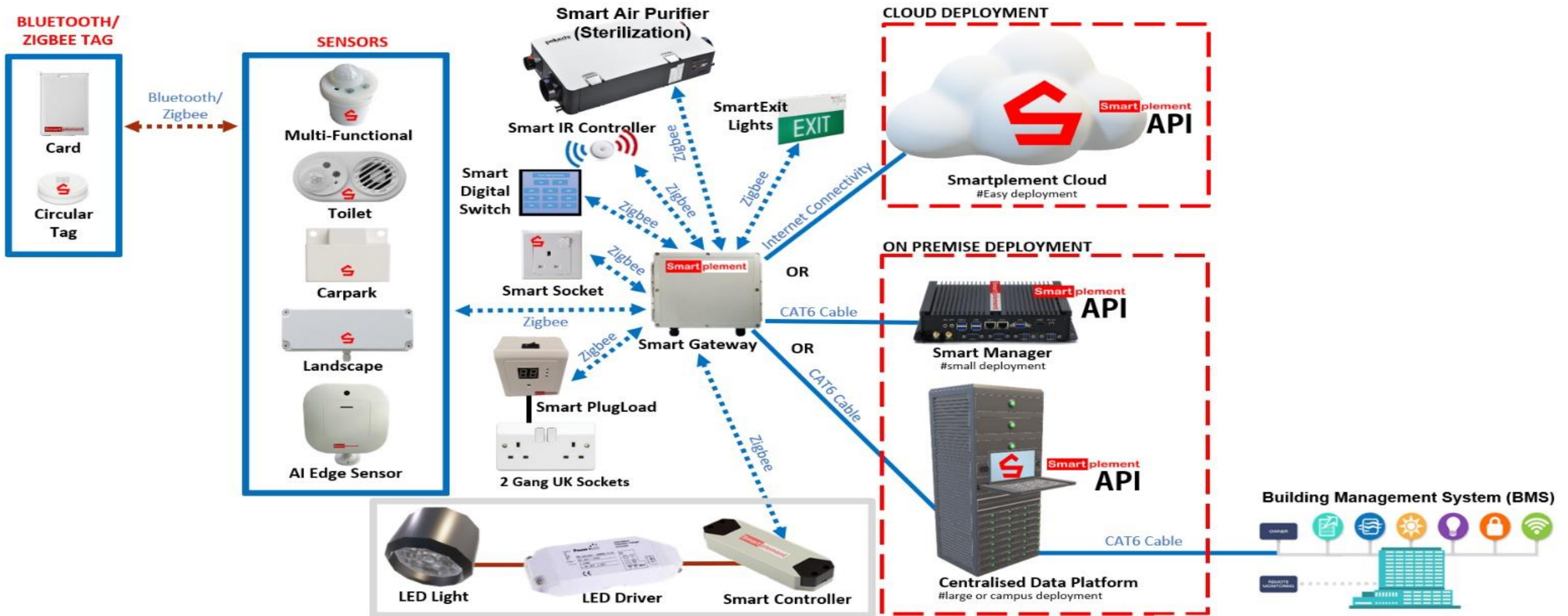
Versatile Control & Monitoring

- Remote Monitoring & Control via InterAct Dashboard
- Local Control via Wireless Switch



Smart Lightings Control System

Smartplement IoT Architecture



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Property maintenance made smart & simple

Granlund Manager is a cloud-based property maintenance and energy management software, creating smarter ways of working

24.3.2021



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Energy

Granlund Manager
Features

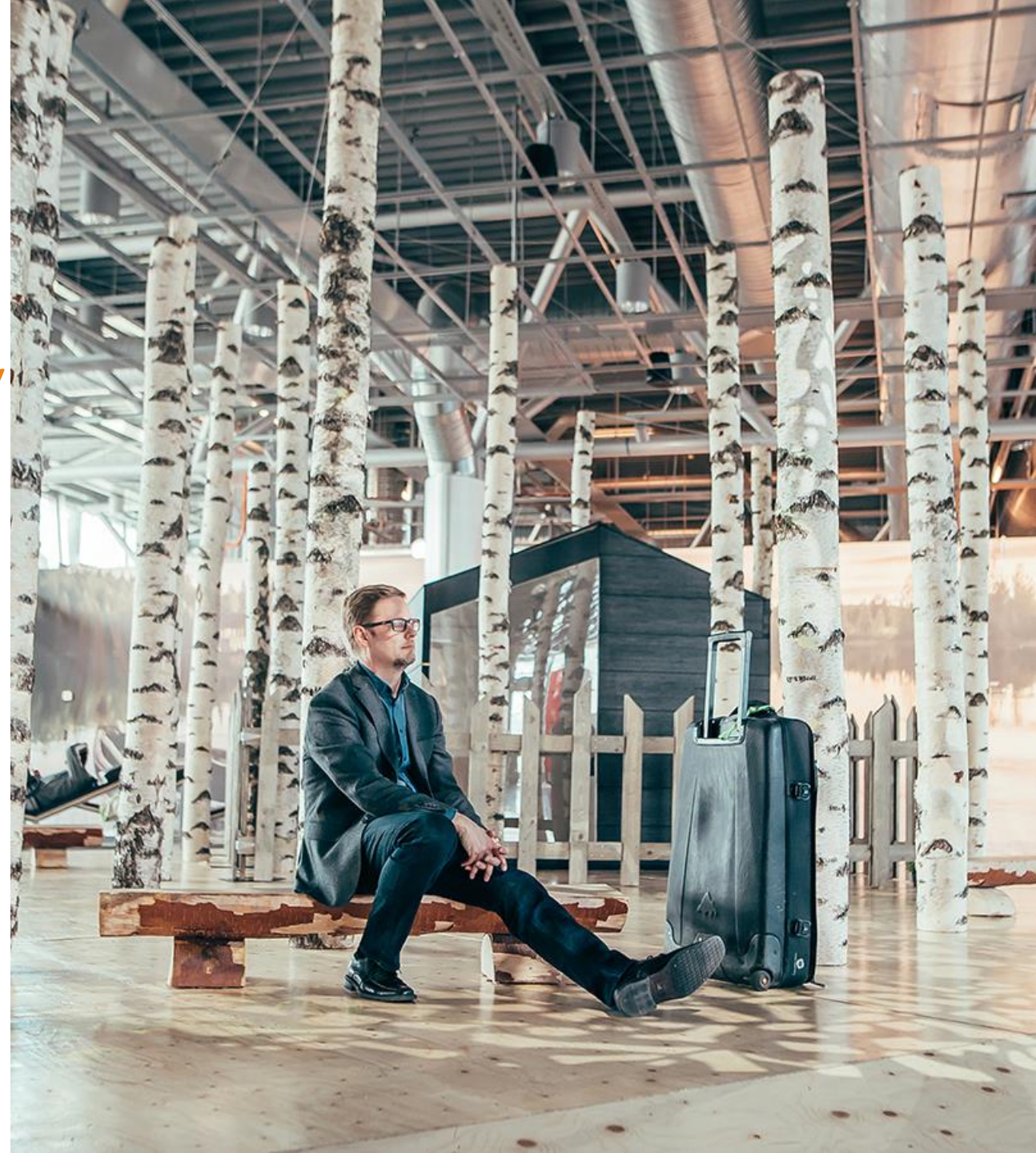


Granlund

Increased energy efficiency

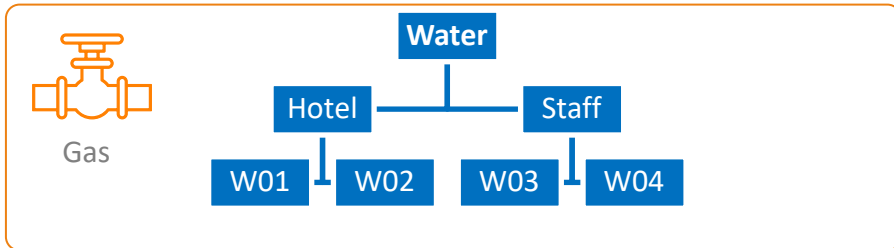
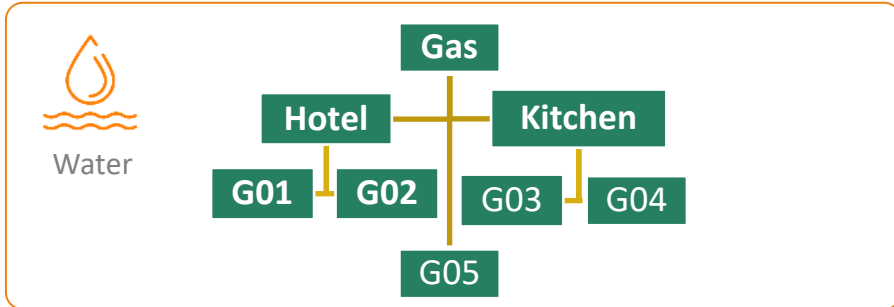
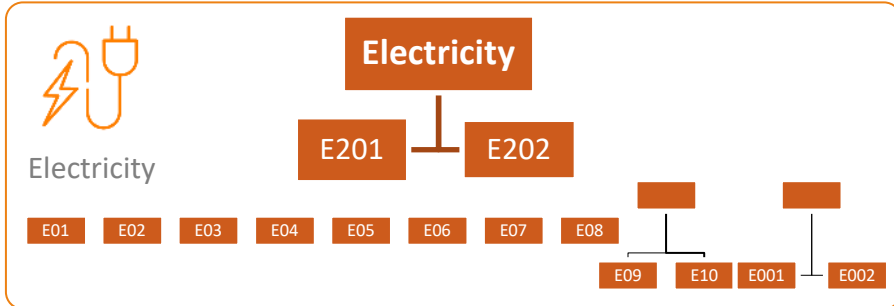
Reduce costs and increase property sustainability

- Granlund Manager **measures the consumption** of all types of utilities, such as electricity, cooling and water.
- **Comprehensive reporting** enables smarter energy management across the entire property portfolio.
- The data can be used for **detailed operative energy management**, which makes corrective actions easy.



Energy data gathering

Meter structure and data



Manual readings



Automatic readings

Electronic meter/BMS



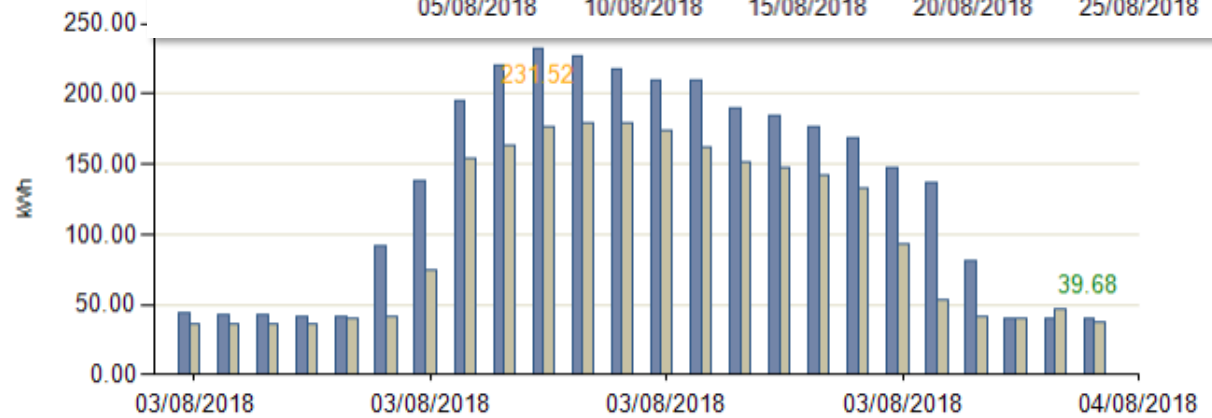
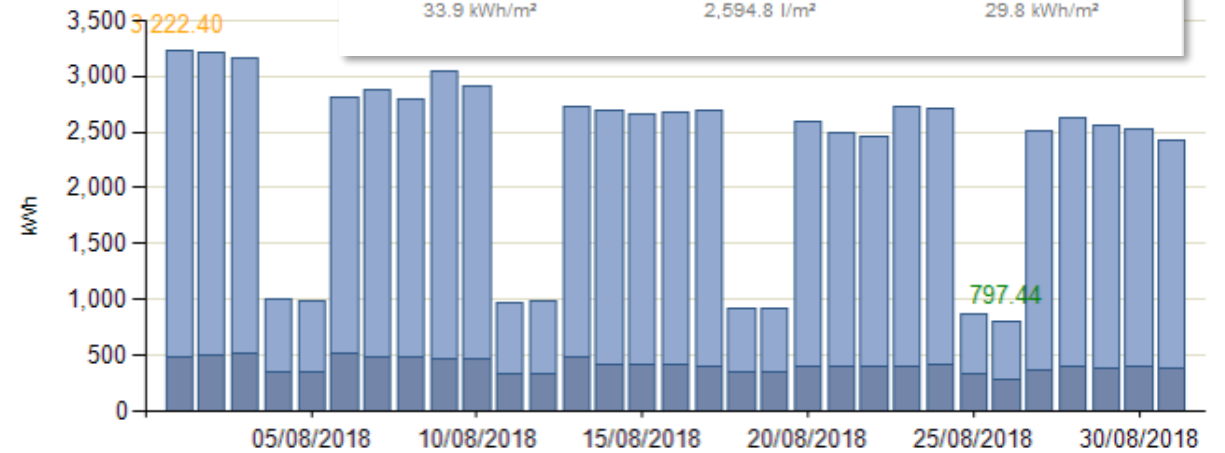
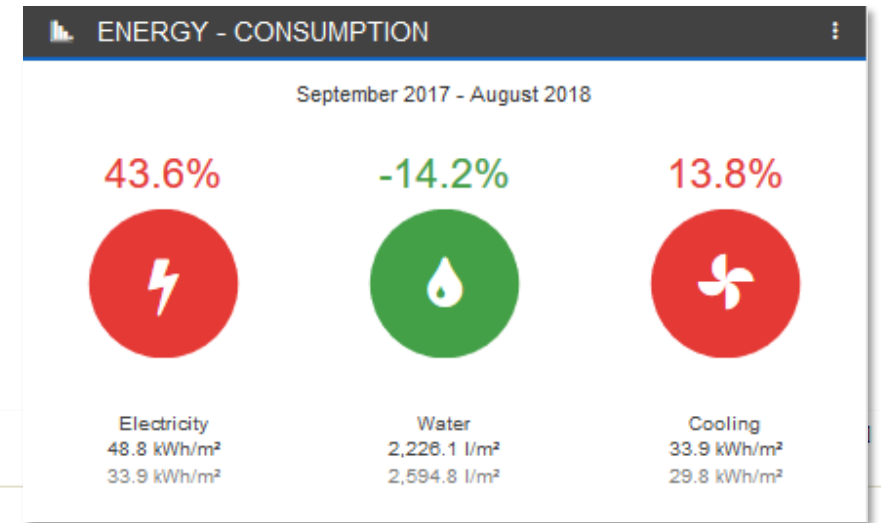
The screenshot displays the ION software interface for managing energy meters. It shows details for a specific meter, including its location, last reading, and consumption item. Below the details is a table of meter readings.

Reading	Updated by
51438	Smith Steve
50235	Smith Steve
49523	Smith Steve
48523	Smith Steve
46452	Smith Steve
45986	Smith Steve
45860	Smith Steve
44586	Smith Steve
44368	Smith Steve
44365	Smith Steve
44259	Smith Steve
43562	Smith Steve

Energy reporting

Operative reporting and follow up

- Data can be transferred **automatically** or **manually**
- Data validation
- Property level summary
- Meter based drill down for deeper analyses
- Daily profile with base load indication
- Hourly consumption profiles



Energy Invoicing

Supporting automated energy invoicing

- Energy meter invoice management
- Tariff and tax management
- Cost center management
- Energy invoice attachments
- Integration to financial systems
- Invoice follow up reporting

Energy invoicing: Dubai Luxury Hotel & Spa

ADD NEW INVOICE ADDITIONAL FUNCTIONS ▾ SHOW SEARCH

Sorted by: ↓ MODIFICATION DATE Grouped by: NO GROUPING ▾

Create a credit note Print PDF [-]

Water 01/12/2017 - 31/12/2017
 Changed: 09/01/2018 08:48 Åkerberg Otto 001 | Asset: Hotel Building | ID: 2

Consumption item: Water Cost center: Dubai Hotel Water

Invoice processing history

	Updated on	Updated by
<input checked="" type="checkbox"/> Phase change	09/01/2018 08:48	Åkerberg Otto 001
<input type="checkbox"/> Energy invoice created	08/01/2018 12:49	Åkerberg Otto 001

Mark as invoiced Print PDF Delete

Electricity 01/12/2017 - 31/12/2017
 Changed: 08/01/2018 12:42 Åkerberg Otto 001 | As

Consumption item: Electricity

Water invoice attachment
 Invoicing period: 01/12/2017 - 31/12/2017
 Printed on: 16/01/2018

1253 Dubai Hotel Water
 Marina avenue 23
 Dubai Marina Reference: 3256487

Submeter readings	Proportion	Consumption	Total
W1 Water Meter, Automatic Reading	100 %	3301 m ³	3301 m ³
Total			3301 m³

Consumption	Unit price	Amount	Total
Consumption fee	3.2 USD/m ³	3301 m ³	10563.2 USD
Total			10563.2 USD

Total	Total
Consumption fees in total	10563.2 USD
Total VAT 0%	10563.2 USD
VAT 0%	0 USD
Total	10563.2 USD

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Thank You