



WINNER
Technical Innovation
of the Year – Product



POWERING
THE FUTURE

CONNECTED POWER

Achieving total energy management



MANAGE
ENERGY USE



MONITOR &
CONTROL YOUR
PLUG IN EQUIPMENT



EASY TO
INSTALL & USE



INBUILT OVERLOAD
& TEMPERATURE
SENSORS

**DESIGNED TO REDUCE PLUG-IN ENERGY
CONSUMPTION IN COMMERCIAL BUILDINGS**

WHAT IS THE CONNECTED POWER SOLUTION?

DESIGNED TO REDUCE PLUG-IN ENERGY CONSUMPTION IN COMMERCIAL BUILDINGS

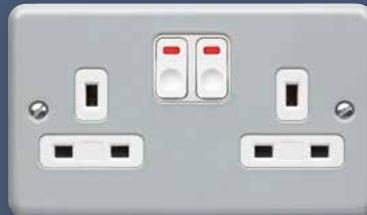
In three steps, Connected Power brings full visibility to monitor and control to the buildings plug in equipment:

1

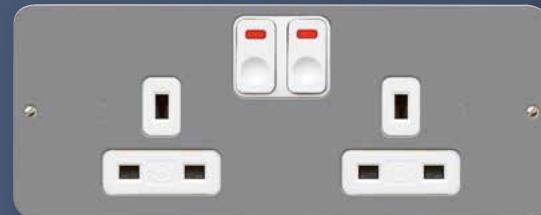
REPLACE TRADITIONAL MECHANICAL SWITCH SOCKETS WITH A RANGE OF INTELLIGENT NETWORKED ELECTRONIC SOCKETS



Logic Plus™



Metalclad Plus™



For use in MK Floorboxes

2

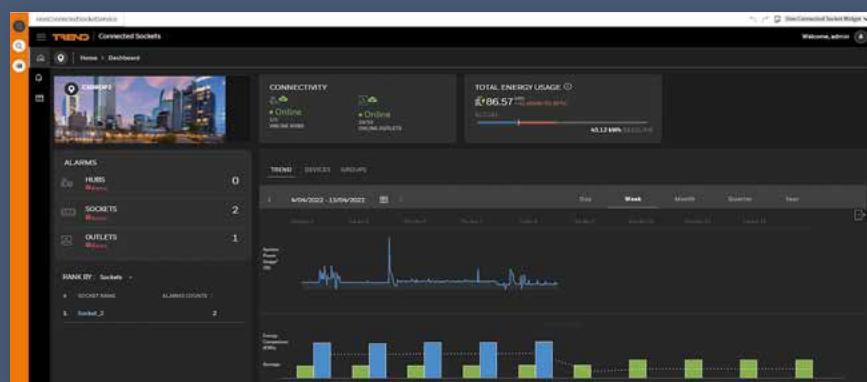
LINK THE ELECTRONIC SOCKETS INTO AN MK HUB AND CONNECT TO THE TREND SUPERVISOR



HUB

3

CONTROL, MONITOR AND GAIN ACTIONABLE INSIGHTS FROM ALL PLUG IN EQUIPMENT ACROSS YOUR ESTATE, WITHIN THE TREND SUPERVISOR.



A TRUE STEP CHANGE IN POWER MANAGEMENT

50 sockets incorporating innovative Mira mesh technology (from Lumen Radio) interlink wirelessly into an MK HUB.

Up to 50 HUBs can run from any single Trend System, re-using existing IP infrastructure, to give a maximum system capability of up to 2500 sockets or 5000 individual outlets.

The Trend Supervisor displays collective or granular information regarding plug load usage across the estate.

The user can control, monitor and set alerts related to power usage for all plugged in devices.

TOTAL ENERGY MONITORING IS NOW POSSIBLE.

WHY IS CONNECTED POWER ESSENTIAL?

1

SMALL POWER ACCOUNTS FOR >25% OF ELECTRICAL USAGE IN COMMERCIAL BUILDINGS

Plug loads often remain unaddressed, leading to high amounts of wasted power from idle devices and standby loads.



LIGHTING



HVAC



SMALL POWER



Lighting is addressed with LED technology, sensors and timers.



HVAC systems are addressed with insulation, thermostatic controls and building energy management system (BEMS) controls.

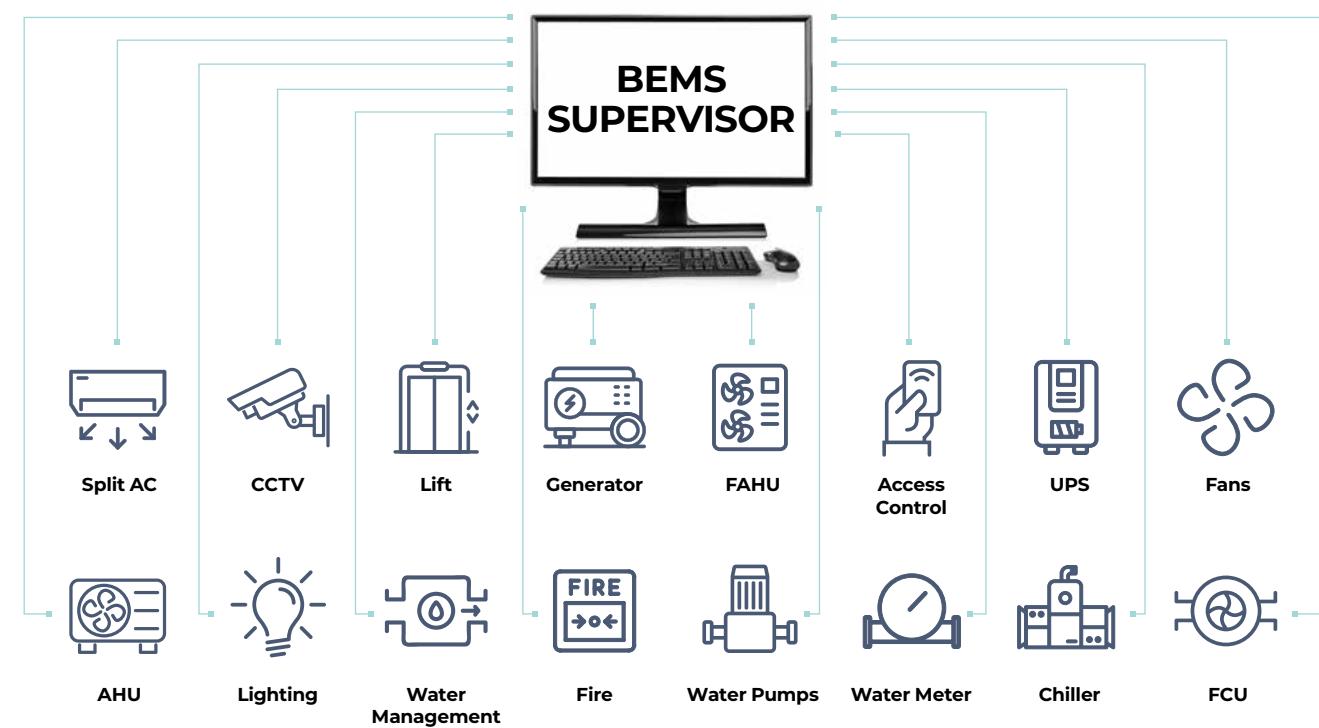


Small power load is not being addressed.

PLUG LOADS >25% OF A COMMERCIAL BUILDING'S ELECTRICAL USAGE

2

THE CAPABILITY DOES NOT CURRENTLY EXIST TO CONTROL,
MONITOR AND UNDERSTAND PLUG-IN ENERGY USAGE



WHO VALUES CONNECTED POWER?

ENERGY MANAGERS

who have HVAC and lighting under control and are looking for that next energy saving opportunity.



- Hit aggressive energy reduction targets
- Find new tech innovations to use in response to Energy Saving Opportunity Scheme (ESOS) audits

FACILITIES MANAGERS

who need to ensure their building operates with minimum disruption.



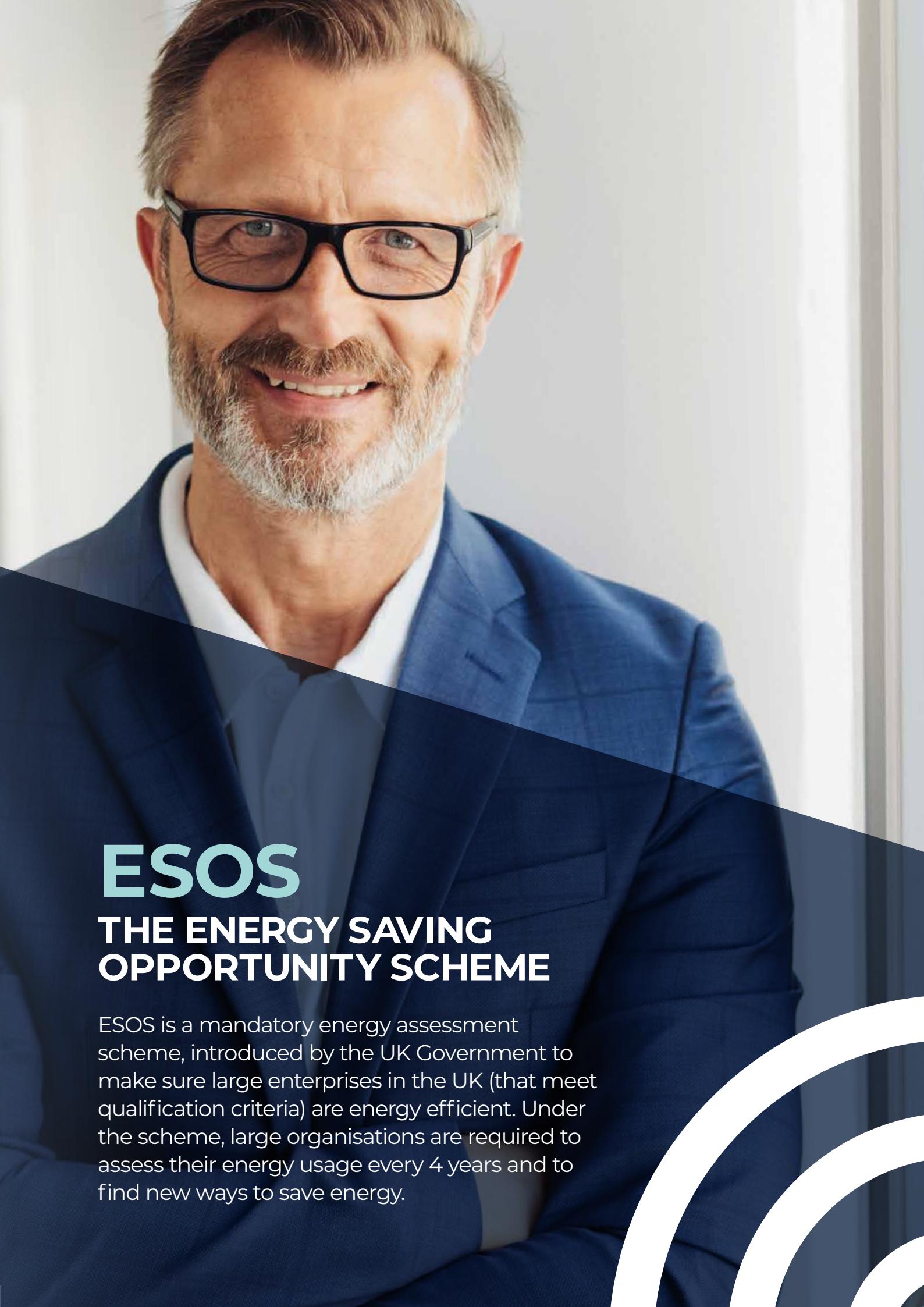
- Turn equipment off remotely when it is not being used
- Monitor and be alerted to gradual increases in equipment energy usage prior to failure

SENIOR MANAGEMENT

who want to provide a safe and secure environment for all staff and visitors.



- Automatically turn off overloaded or overheating sockets
- Be alerted when staff use unauthorised equipment e.g. fan heaters



ESOS

THE ENERGY SAVING OPPORTUNITY SCHEME

ESOS is a mandatory energy assessment scheme, introduced by the UK Government to make sure large enterprises in the UK (that meet qualification criteria) are energy efficient. Under the scheme, large organisations are required to assess their energy usage every 4 years and to find new ways to save energy.

HOW HAVE WE DESIGNED CONNECTED POWER?

CONNECTED POWER INSTALL JOURNEY

STAGE 1



SITE SURVEY

Work with our dedicated team to highlight what is right for your installation.



There are three options we can work to.
Control & Monitor:
Only outlets of high energy use
All used outlets
All estate outlets

STAGE 2



SPECIFICATION

We will provide a tailored list of what is needed for your project.



STAGE 3



INSTALLATION

Once approved, the sockets and HUBs will be installed by your electrical contractor.



MK Electric sockets offer pain free installation for either new or retrofit projects.





STAGE 4



COMMISSIONING

The electrical contractor will build the system virtually linking HUBs and sockets using our portable app.



Naming information can be pulled from Stage 2, to simplify the process and store in system.

STAGE 5



SUPERVISOR CONNECTION

The system integrator will discover the network within the Trend IQVISION Supervisor.



STAGE 6



CONFIGURATION

The system integrator will configure the system to your exact requirements.



Configuration options include Groups & Schedules, alerts related to low/high energy levels or high socket temperature.



CASE STUDY AND CAPABILITY

SCHOOL ENERGY MANAGEMENT

CUSTOMER PROBLEM

Plugged in equipment is rarely turned OFF and often left to run or 'on standby' 24/7.

We saw Energy Efficiency in a number of different building locations.



KITCHEN

Turned OFF all possible equipment when service had finished and turned on again the next day ready for use.

MUSIC ROOM

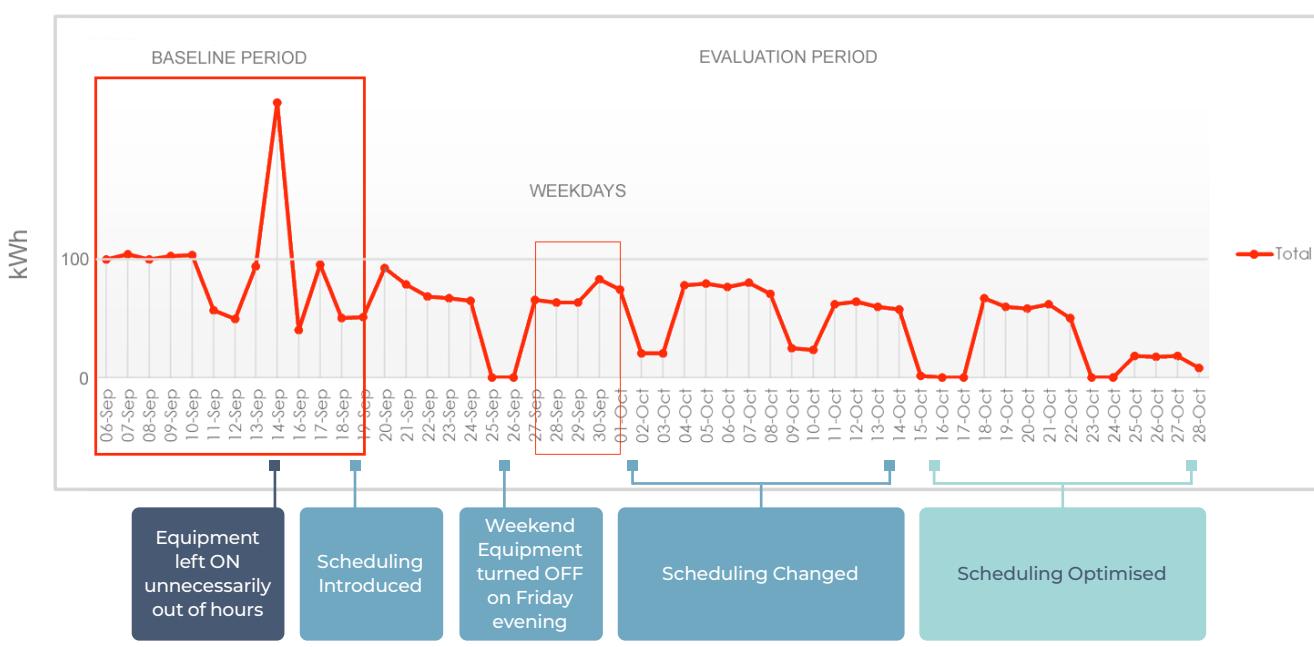
Turned OFF all electronic equipment at the end of the school day. Pupils would need to turn on again when needed.

GYMNASIUM

Monitored granular energy consumption for usage with intent of turning OFF when machines were left unused for 10 minutes or longer.

ENERGY USAGE BY DAY THROUGH BASELINE AND EVALUATION PERIODS

DEFINE MEASURE ANALYSE IMPROVE CONTROL





GROUPING

Outlets can be grouped together by location or equipment type for benchmarking and data analysis.



SCHEDULES

Outlets can be scheduled individually or by group.



CONTROL

Outlets can be set to turn ON, OFF or LOCKED ON or LOCKED OFF. When ON or OFF, outlets can also be controlled using the button on the outlet as you would do normally.



ENERGY MONITORING

The energy consumption of each outlet is continually monitored and reported into the system at regular intervals.



TEMPERATURE MONITORING

The internal temperature of each socket is continually monitored for conditions resulting in excessive heat.



ALERTS

Alerts can be set to any outlet and can be related to power levels rising above or falling below a threshold or the internal socket temperature rising above a particular setpoint.



RESPONSE TO ALERTS

On screen notices and emails can be generated. Outlets can be forced to change state automatically to the needs of the customers.



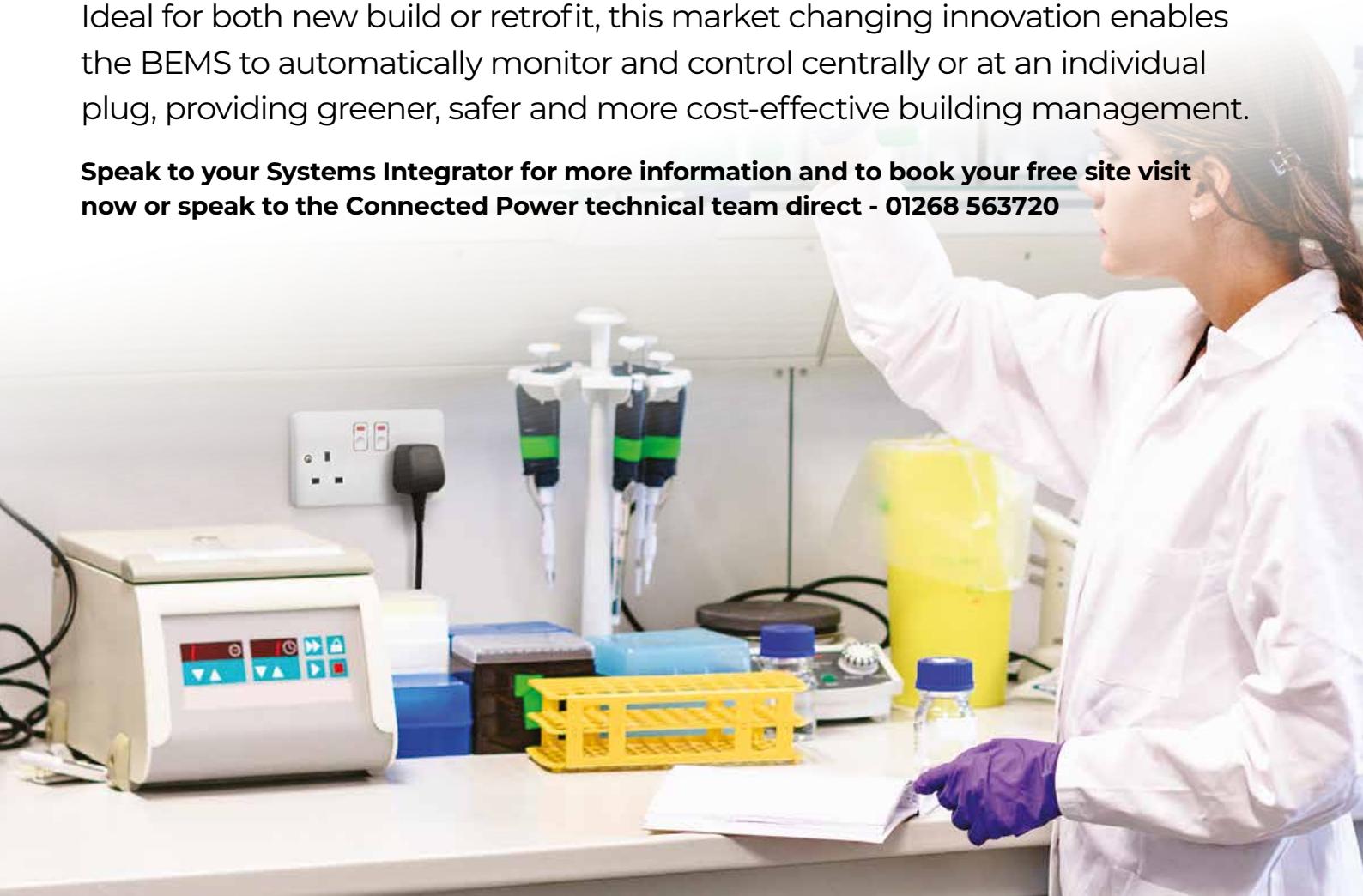
DISPLAY AND ANALYSE

Through IQVISION you will be able to visually display all levels of energy usage and data for outlets, groups and the entire system - drilling down to understand the detail as needed.

TRUSTED PROVIDERS

The leading HONEYWELL brands, TREND & MK ELECTRIC, come together to offer the first fully integrated building small power management system. Ideal for both new build or retrofit, this market changing innovation enables the BEMS to automatically monitor and control centrally or at an individual plug, providing greener, safer and more cost-effective building management.

Speak to your Systems Integrator for more information and to book your free site visit now or speak to the Connected Power technical team direct - 01268 563720



SALIX FINANCE

The Connected Power solution, as part of the TREND BEMS system, is eligible for public sector government funding through Salix Funding Ltd.

Salix Finance Ltd. provides Government funding to the public sector to improve energy efficiency, reduce carbon emissions and lower energy bills. Salix Finance is a non-departmental public body, owned wholly by Government and is funded by the Department for Business, Energy and Industrial Strategy, the Department for Education, the Welsh Government and the Scottish Government.

Find out more about funding opportunities by visiting - <https://www.salixfinance.co.uk/>

TREND

Hwll.co/discoverconnectedpower
#discoverconnectedpower



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THE FUTURE**