Temporary Power Distribution

erica

Energy Management and Control System.

Reduce Power Wastage, Costs and Carbon Emissions.

Identify areas where power can be reduced using smart technology.

erica energy management tool plays an important role in designing cost effective and low carbon solutions for temporary power installations.

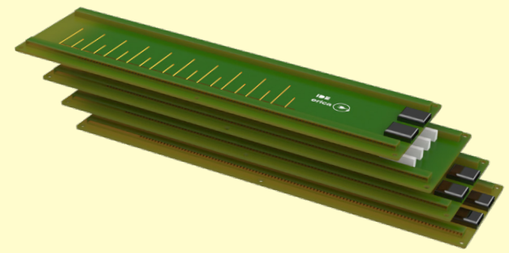
How does the energy management and control system, Erica, work?

The Erica module is fitted into a site distribution board, which means no additional equipment is required onsite.

The Erica module is then connected to WIFI or 4G to send power usage data straight to the online dashboard.

The online dashboard allows you to view live power usage and turn power on and off to certain areas of the site using the scheduler.

By measuring power loads over time, and across an entire site installation the power needs can be analysed to determine the best mix of diesel generator, hybrid and alternative power sources.



Where can Erica be used?

Erica can be used within construction sites, as it is aimed at managing and reducing the energy waste from cabins, such as electric radiators, hot water heaters and drying room dehumidifiers.

Event and festivals can also benefit from the energy management and control system.

Key Features.

2in1 Power Distribution board containing the Erica module, no additional equipment required.

Cloud Based Solution.

Capability to turn power on and off using the online dashboard.

Live data monitoring.

Different profiles and labels for each connection.

Connection via WIFI or 4G.

Pre-set power controls.

User-friendly dashboard.

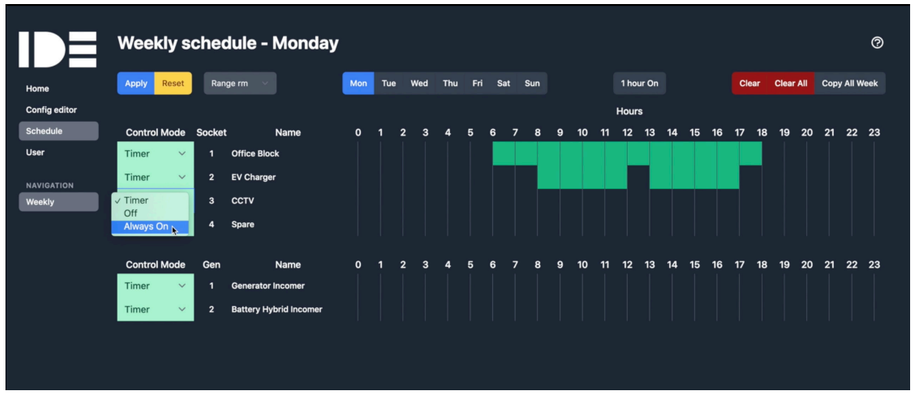
Why use Erica?

The Erica module is contained within the site distribution board, meaning no additional equipment is required on site. The erica site board can be hardwired or socketed (plug & play).

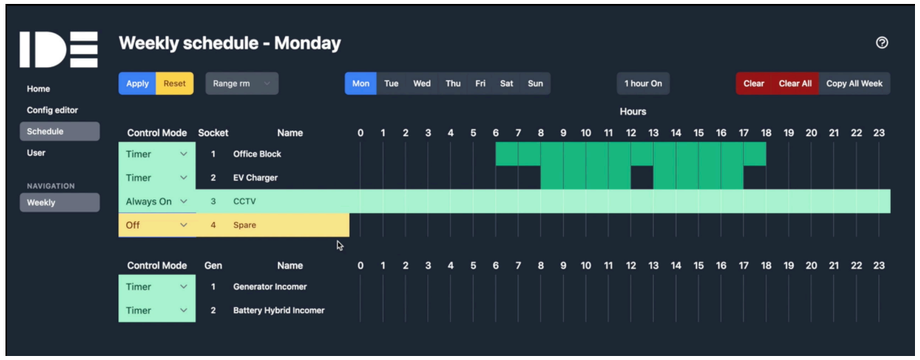
Reducing site power consumption provides sites with the opportunity to downsize large, noisy diesel generators with smaller ones or move to low carbon solutions, such as battery hybrid units, solar pods or an electricity grid connection from renewable sources.

Automation and Control at your fingertips.

The schedular allows you to reduce power wastage onsite.



Once setup the erica scheduler enables sites to isolate circuits and turn off power in cabins, when it is not required, making sites more energy efficient through the prevention of power wastage.



As Erica shuts off equipment and cabins overnight, there is an additional benefit of reduced noise from generators, on top of the significant cost and carbon savings from reduced fuel consumption.

Learn more about the schedular.

Scan the QR code on the right and you will be directed to an online presentation.

The presentation contains step by step guides on how to use the Erica schedular.

FLOWCODE

PRIVACY.FLOWCODE.COM

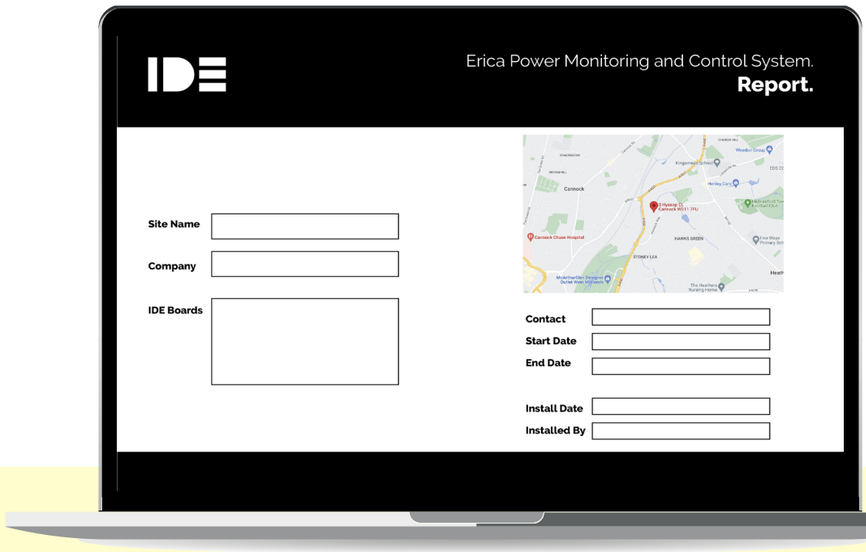
Detailed reports on power consumption.

Our expert engineers can advise on how to lower your power usage, costs and carbon emissions.

Reporting.

View detailed power usage reports through the widely used Microsoft PowerBI reporting suite. Totally customisable for your needs, grouping data and providing drill down.

We can provide standard report templates to get you started, and can develop bespoke solutions. Whether it's understanding maximum power needs, identifying trends, or highlighting out of hours power, usage reports give clear information to act upon.



The benefits of using Erica:

- Identify power wastage onsite.
- Giving you the control to ensure power is switched off in certain areas when needed.
- Reduces costs and carbon emissions.
- Live monitoring can assist in pre-empting breakdown or potential overloading.
- Reduced generator maintenance costs.
- Higher reliability.
- Lower cost & emissions per kwh.
- Power needs can be analysed to determine the best mix of diesel generator, hybrid and alternative power sources.

Over 30% reduction in power usage.

Example of how Erica can be used on a construction site.

24 cabin set up 5 bay canteen, 3 drying rooms & toilets on ground floor.

Meeting rooms and offices on top floor.

Heating on separate circuits to allow independent heating control.

Hybrid battery/ generator setup.

Sample site monitored over 100 days from February to May 2022.

Higher savings in cold months.

"Temperature Factor" based on minimum and maximum temperatures per day.

Cost savings over 100 days
£6,374

Carbon savings over 100 days
***11,300kg**

*Fuel used on site was diesel.

32%
Saving

Site Total Power
Erica reduces power usage for non-working hours during the week, and substantially lower at weekends.

20%
Saving

Site Office with computers & printers
Erica reduces power usage for non-working hours, but ensure temperatures not too low to stop condensation on sensitive equipment.

25%
Saving

Drying Room
Erica reduces power by turning off during the night once clothes are dry.

61%
Saving

Canteen & general offices, meeting rooms
Erica reduces power usage for non-working hours during the week, and substantially lower at weekends.

Impact of Erica on hybrid battery system.

Savings on fuel is 80 litres per day based on 100KVA generator.

- Site can run on battery output capacity because of the power savings from Erica.
- Increases generator off time, increasing efficiency and reduces maintenance cost.
- Prevents batteries from running out of power.
- Optimizes investment in battery technology.

Right Sizing Generators

Using the data the correct size generator can be installed to ensure the most efficient running, without risk of overload as well as potential additional savings.

30% reduction in size

Your power consumption in your hands.

Implement tools on your site at an early stage to help lower your power usage, costs and carbon emissions.

Sustainability and Erica.

The first stage on a site's journey, in reducing operational carbon, is to prevent energy wastage. Erica's power monitoring data enables sites to identify areas where energy is being wasted.

The erica scheduler can be set to turn off heating, lighting & power circuits, when not required. Effective use of the erica energy data and scheduler can highlight opportunities for sites to 'downsize' generators and maximise battery bank output through load control.

SUPPLY CHAIN SUSTAINABILITY SCHOOL

IDE is an active partner at the Supply Chain Sustainability School.

IDE sits on the Plant Working Group, which is a collaboration between clients, contractors, plant hire companies and suppliers aiming to improve air quality standards across the industry and engage and inform the supply chain on their role to play in moving to low-carbon site.

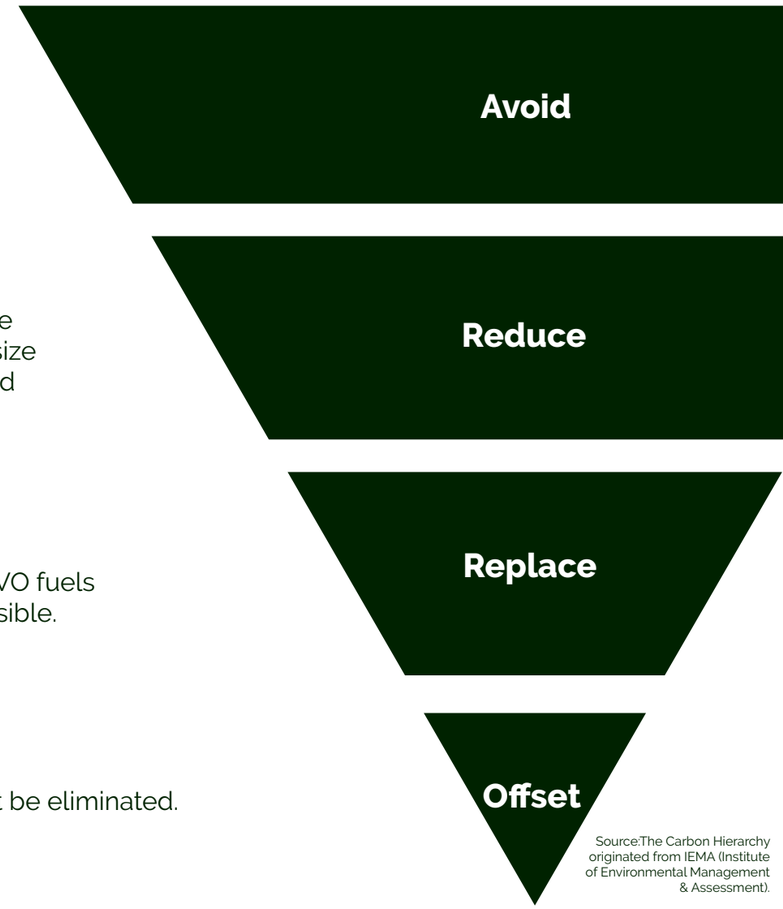
The Carbon Hierachy.

1. Prevent energy wastage using Erica power monitoring & control system.

2. Exchange generator for more efficient equipment e.g. downsize generator, swap for solar hybrid battery units.

3. Replace white diesel with HVO fuels or mains electricity where possible.

4. Offset emissions that cannot be eliminated.



Source:The Carbon Hierarchy originated from IEMA (Institute of Environmental Management & Assessment).

The Erica module can be fitted into our range of Site Distribution Boards.

Our Site Distribution boards are 100% configurable to suit your project needs, and to ensure longevity our boards are made out of steel to withstand tough on-site conditions. For different projects the board can be reconfigured, with easy breaker and socket changes. Our board is an asset that can be re-used and re-configured as needed.

Our design complies with BS 7375:2010 legislation which includes the requirement for separate lockable access to outgoing breakers and main breaker. Built in house under ISO9000 quality systems at our manufacturing centre, where we also offer annual testing and spare parts.

- 100% configurable board.
- Stainless Steel enclosure.
- Adaptor Plates to change outgoing ways.
- Lockable incoming breaker door.
- BS 7375:2010: - Distribution of Electricity on Construction & Demolition Sites – Code Of Practice.
- Hard wired, fly lead or panel mount incomer.
- Forklift pockets.
- Galvanised crash frame.

Material
We offer 3 materials for cabinets:
> Mild steel, ideal for both indoor & outdoor use
> Zintec is a zinc treated mild steel alloy, ideal for outside use
> CR12 is a low grade stainless steel ideal for harsh environment (such as costal sites)

All cabinets are made from 2mm thick material that is both folded, welded, powder coated or painted to your specific RAL code. All cabinets are manufactured to an IP55 rating.

IP55 Explained:
5 Dust Protected Ingress of dust is not entirely prevented, but it must not enter in sufficient quantity to interfere with the satisfactory operation of the equipment; complete protection against contact. 5 Water jets. Water projected by a nozzle (6.3mm) against enclosure from any direction shall have no harmful effects.

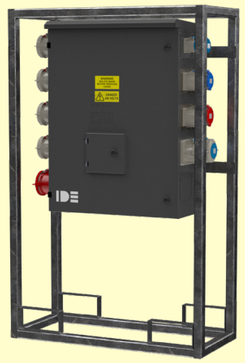
Typical Site Distribution Board Configurations.

SD Compact Range

Size (mm):	H1220 x W660 x D400
Weight (kg):	50kg
Total sockets available:	10
Max Mod:	40
Incoming Breaker:	63A - 125A

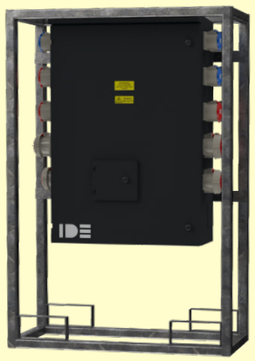
SD Standard Range

Size (mm):	H1450 x W900 x D400
Weight (kg):	115kg
Total sockets available:	20
Max Mod:	40
Incoming Breaker:	125A - 250A



SD Plus Range

Size (mm):	H1450 x W900 x D400
Weight (kg):	125kg
Total sockets available:	24
Max Mod:	56
Incoming Breaker:	250A - 400A



FAQs

What is erica?
Erica is a power monitoring and control tool, that can help reduce site fuel costs, power and carbon emissions.

What does erica stand for?
Energy Reduction through Information, Control and Automation.

How is erica installed?
The erica module is installed into a site distribution board. which can be retrofitted on to any site. Each board can monitor & control up to 32 individual circuits or whole cabins and multiple boards can be used on large sites.

What are the benefits of erica?
> Identify power wastage onsite,

> The erica Scheduler Gives you the control to ensure power is switched off in certain areas when needed,

> Once the scheduler is set up, the automated solution runs without site intervention

> Power needs can be analysed to determine the best mix of diesel generator, hybrid and alternative power sources,

> Live monitoring can assist in pre-empt breakdown or potential overloading.

How are the reports generated?
Reports are generated from the dashboard and can be exported into reporting tools such as Power BI. An IDE adviser can provide power reports, highlighting where power can be saved. Don't worry, our adviser will guide you through the reports.

I don't use a generator; do I still need erica?
Yes, erica can help control your power usage onsite from a mains supply, using the online dashboard you can turn off power to certain areas when not needed and turn it back on when needed.

To make it even easier, you can schedule in times and the tool will automatically turn power on and off for you.

How does the tool collect data?
Once the site distribution board is connected to your site
power source, the module will instantly collect power usage data through WIFI or 4g connectivity, it then sends this information to the cloud, where you can access the data through the easy-to-use dashboard.

It's a clever little thing!

I use a different mix of power sources; I believe I am saving costs and reducing carbon emissions.
Ah! You might think you are saving costs and reducing your carbon footprint, but do you know for certain? Erica can give you reports and accurate data that you can shout from the roof tops that you are saving power, reducing your costs and carbon emissions.

I have a hybrid battery on site, do I need Erica?
Yes, Erica manages power demands to ensure optimum time spent on battery, therefore reducing generator run times and reducing costs and carbon.

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