



reducing carbon emissions locally and globally

# Capability Statement

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# About Emissis

***Emissis is a trading name of Electrical Mechanical & Cooling Ltd. We are an energy and cleantech engineering company built on over 120 years' experience providing electrical solutions to businesses worldwide. We design, supply, install and maintain a range of solutions aimed at helping private and public businesses to achieve more with their energy reduction strategy and transition to a net zero carbon operation.***

Our management team have developed a wealth of experience and technical expertise in electrical, mechanical and energy related services and technology. We are based in Stockton-on-Tees and work across the UK and we can carry out work in Europe and other regions of the world.

Emissis is the exclusive supplier of the COOLNOMIX® device in the UK & Ireland, Scandinavia, across the entire European continent, Australia and Chile. We also supply, design and project manage industrial and commercial systems such as battery energy storage, voltage optimisation, boiler optimisation, PIR devices and electric vehicle charging poles and stations via our strategic partnership with Enel X.

We also have a suite of solutions aimed at the social housing market to allow local authorities and major landlords access to proven energy and carbon reduction technology.

We have a team of experienced power engineers and project managers offering best in sector engineering, construction, commissioning and maintenance capabilities.



# How we can help your business

We have a unique set of skills, services and technology that can directly help you achieve more with your business energy requirements and improve the profitability of your business. Through key strategic partnerships we can offer you a suite of technology solutions that are world-class. We can also help you with competitive finance if capital outlay is an issue for your business.

## Net Zero is coming

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The UK government is legally bound to reach net zero by 2050 and several other major economies are doing the same. More businesses than ever before are now having to report on carbon emissions. Start your net zero journey today and reap the benefits sooner.

## Emissis is ahead of the game

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We deliver a powerful suite of solutions that reduce your carbon emissions, save you money with lower energy bills and generate revenue from being a more flexible energy user with the help of today's leading technology.

## Management team

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Our management team has several decades of experience working with energy, electrical and mechanical solutions. We have worked with small businesses and large energy users such as Hospitals and Universities to Manufacturers and major energy users such as Chemical processing plants; and critical power sites such as Airports and Data Centres.

# Industrial & Commercial Solutions

## Coolnomix®

*Stay cool, save money and reduce your business' carbon emissions*

*We can deliver up to 40% electricity savings without getting hot*

We help businesses to make big energy and carbon savings without changing cooling needs so that your building users are kept comfortable, equipment stays cool and your produce remains chilled.

COOLNOMIX® technology can be easily installed by our qualified engineers with no disruption to your operation. You can expect up to 40% energy saving on your air-conditioning and up to 30% on your refrigeration without your cooling output being affected. COOLNOMIX® can also deliver great results in temperature critical sites such as Data Centres.

*We keep your people and products cool, and your energy budget from overheating*



Data Centres, Commercial Refrigeration, Air-conditioning

# Industrial & Commercial Solutions

## WiREMS Energy Controller

***Maintain comfort, save money and reduce carbon emissions***

***We can deliver a powerful return on your investment***

We help businesses to significantly reduce energy costs and lower carbon emissions without changing the comfort levels that your building users need. Our clever energy-saving device makes sure that your investment is paid back quickly and then you can enjoy lower energy costs and emissions on an ongoing basis.

Our British designed and manufactured WiREMS technology is easy to install with little or no wiring, depending on which device you choose. You can expect a payback of between 6 – 12 months as our occupancy energy controller stops wastage from your air-conditioning and lighting, in rooms that are not being used. Our technology also has an optional door and window sensor to stop expensive heating and cooling from escaping outside whilst the room is occupied, saving even more money.

***We don't drop comfort levels but we do drop your energy bills and carbon emissions***



Offices, Venues, Health & Education, Hotels

# Industrial & Commercial Solutions

## Voltage Optimisation

***Save energy and lower carbon emissions immediately and continuously***

***We deliver shockingly good returns every day***

Voltage optimisation is a well-established and proven technology, especially in the UK where electricity is supplied at an average of 242 volts, which is high, compared to other countries.

Our Eco-Max technology is a cost-effective system designed for use in all types of businesses. It reduces energy consumption by up to 19% whilst significantly lowering carbon emissions but Eco-Max does much more than simply adjust the voltage; it is also a comprehensive power quality improvement system that improves the efficiency of your whole site.

It is available in two main versions, Eco-Max-Power (large industrial sites) and Eco-Max-Commercial (commercial and light industrial sites). Both operate continually at the rated current. Have no moving parts, require no maintenance and are extremely reliable. The unique designs deliver savings 24/7/365 – a true “fit and forget” solution.

***We power your business with less***



Three-Phase Power Sites

# Industrial & Commercial Solutions

## Dynamic Boiler Optimiser

***Reduce your boiler's fuel consumption without changing your building's heating performance***

***Keep your boiler optimised and your consumption under control***

We can help your business to make significant energy and carbon savings whilst keeping your heating needs unchanged. Our Dynamic Boiler Optimiser is an innovative UK designed and manufactured smart energy-saving technology that delivers an average 16% reduction in gas consumption.

Our DBO provides you with real-time monitoring and remote control, keeping you up to date and alerted to any problems. Report functions help you understand performance, consumption and emissions data at any time; helping you stay compliant with regulations.

***We optimise your control***



Gas Fired Boilers, Process and Heating Applications



# Industrial & Commercial Solutions

## Onsite PV

***Reduce your carbon emissions and reliance on expensive centralised power***

***Harness the power of the sun onsite and lower energy bills***

We help businesses transition towards net zero with the use of leading solar panel technology allowing you to develop your own micro-grid converting the free power of the sun into onsite clean energy for your operation. Most businesses have a suitable space for a solar array, whether that be rooftop or ground-mounted, and as the cost of grid power increases and carbon emissions policy tightens; this is the time to invest in solar and capture the benefits. Integrating battery energy storage to your micro-grid system can bring even more benefits (see page 10).

We will ensure your system is tailored for your energy profile and carbon reduction ambitions. We offer an end-to-end service from initial feasibility studies to installation and commissioning.

***We help your business become a power player***



Rooftop and Ground-Mounted

# Industrial & Commercial Solutions

## Battery Energy Storage

***Reduce your risk against costly power cuts and expensive grid power***

***Be protected and generate revenue from the smart grid***

We help businesses to make the most of behind-the-meter energy storage. Batteries do more than just store excess power from renewable generation. Even without onsite generation, you can still be an effective smart grid player taking power from the grid when power is cheap and discharging to fuel your business when power is expensive. If you do have onsite renewables you can increase the value of your generation.

We can assess your operation and recommend the right size battery for your needs. We supply, install and can manage the ongoing maintenance of your battery. Funding is available.

***We help your business to be energy smart***



Public Sector Buildings, Manufacturing Sites

# Industrial & Commercial Solutions

## EV Charging

***Support your growing community of electric car users and generate revenue***

***Our knowledge means you get the best technology for your needs***

We help both private and public businesses to provide electric car users with charge points for their vehicles. We can evaluate your site and propose locations, advise you on the varying technology options and then our qualified engineers manage the full installation and testing with minimal disruption to your business.

Now that you are up and running and keeping your community happy, we can get on with maintaining your new assets and returning user fees back to you via our billing platform, helping you see and report on your new revenue stream.

***We offer full project management, so you can charge on with other jobs***



# Residential Solutions

## PV + Battery

*Improve your building stock with renewable energy without capital outlay*

*Get fully-funded solar and storage then generate revenue*

Our funding network and technical expertise help multi-property owners to rollout rooftop solar generation and domestic battery energy storage that can significantly reduce tenant energy bills and their carbon emissions. We can help you generate a new revenue stream by selling generated and stored electricity to your tenants and any excess electricity to the grid.

We offer an end-to-end service from initial feasibility studies and agreeing funding, to installation and commissioning.



We have the power to deliver your project

# Residential Solutions

## Voltage Optimisation

***Save energy and lower carbon emissions immediately and continuously***

***We deliver shockingly good returns every day***

Voltage optimisation is a well-established and proven technology, especially in the UK where electricity is supplied at an average of 242 volts, which is high, compared to other countries.

Our technology, eco-max-home optimiser, is a small and cost-effective system designed for use in homes. It reduces energy consumption by up to 19% whilst significantly lowering carbon emissions and prolongs the life of white goods and electrical appliances, and the lifetime of a domestic inverter where a home has rooftop solar.

It is available in two convenient sizes, 63 amp and 100 amp and operates continually at the rated current. It has no moving parts, requires no maintenance and is extremely reliable. The unique design delivers savings from your electrical appliances 24/7/365 - a "fit and forget" solution.



We power your housing stock with less

# Residential Solutions

## Infrared Heating

***Improve your homes with highly efficient future proof heating***

***Help tenants escape the cycle of losing expensive heating***

As our decarbonising economy moves away from gas in favour of cleaner and renewable electricity, infrared heating offers a modern and future proof energy-efficient heating system that has substantially lower installation and maintenance costs, compared with traditional fan-assisted or water-based systems.

Infrared heating is designed around how the human body works i.e. we are designed to accept and emit infrared waves, so infrared heating gives the same feeling as natural sunlight. Infrared heating does not escape when doors and windows are opened, unlike traditional conduction and convection systems. This means infrared heating is 100% efficient, as nothing escapes to the outdoors.

Further energy savings come from the fact that the home's building fabric retains infrared heat for much longer than the traditional heating, providing more thermal comfort and lower carbon emissions.



# Residential Solutions

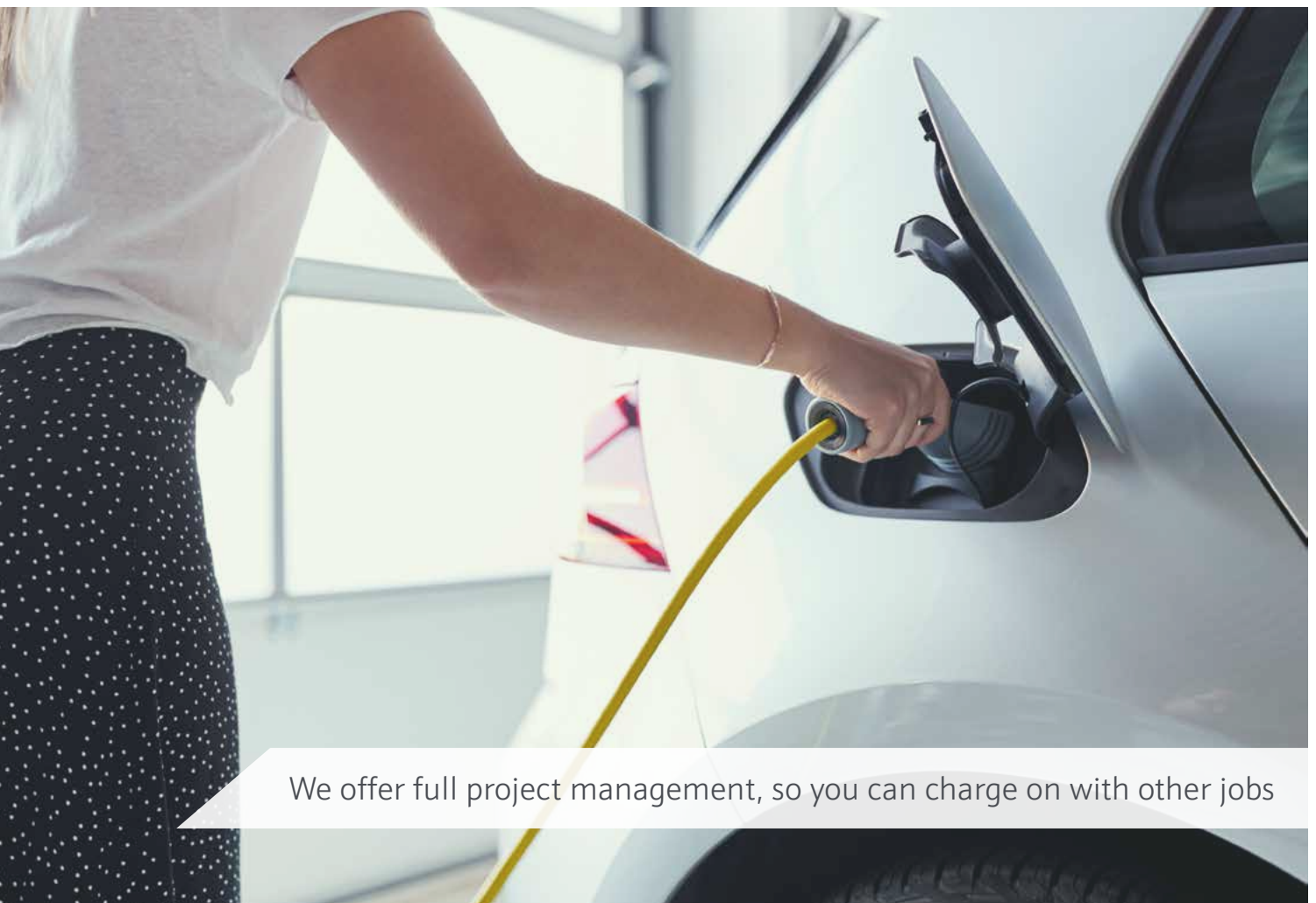
## EV Charging

***Support your growing community of electric car users and generate revenue***

***Our knowledge means you get the best technology for your needs***

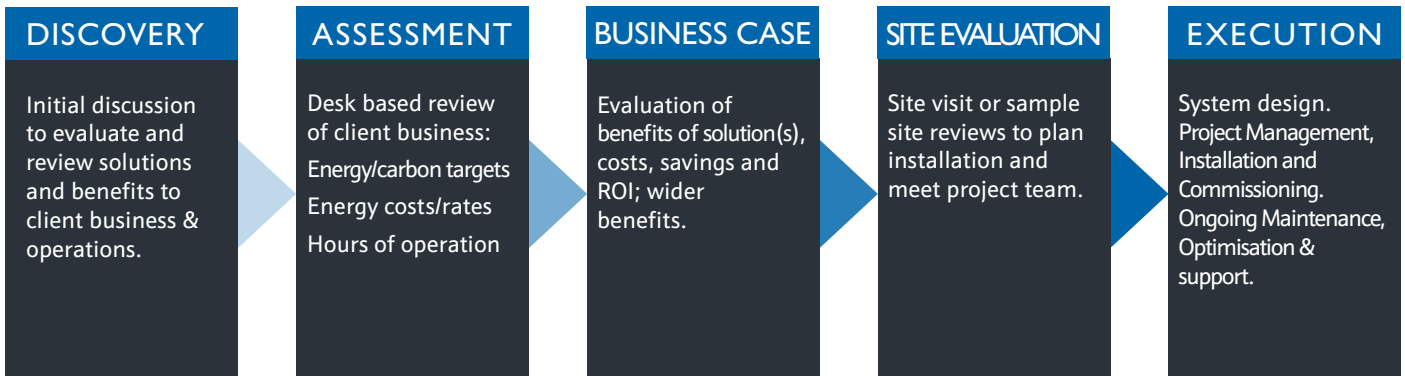
We help local authorities to provide electric car users with charge points for their vehicles. We can evaluate your site and propose locations, advise you on the varying technology options and then our qualified engineers manage the full installation and testing with minimal disruption.

Now that you are up and running and keeping your community happy, we can get on with maintaining your new assets and returning user fees back to you via our billing platform, helping you see and report on your new revenue stream.



We offer full project management, so you can charge on with other jobs

# Services



## Discovery & Assessment

Initial discovery and desk assessment will evaluate and review the solution(s) best suited to your business and energy/carbon strategy. We will collect relevant data from you in order to get a strong understanding of your operation/site(s). This will allow us to quickly verify the potential of our solution(s) and the immediate direct benefits in line with your goals.

## Business Case

Using the information gathered from Discover & Assessment we will build a business case demonstrating the direct benefits of our solution(s) and how they help you achieve your energy/carbon goals. The business case will outline the Return-on-Investment projection(s) and a detailed CAPEX analysis which may also include part or full financing options in case you require or would like to explore outside capital.

## Site Evaluation

We offer a 'no charge - no obligation' assessment programme that will explore your operation/site(s) suitability for our solution(s). We will arrange to meet you and your team at your site(s), make a physical and engineering assessment. We will also check existing electrical systems and infrastructure to assess the viability of each solution and the direct benefits of the solution(s) in question.

## Execution

**System Design** - Our team of qualified engineers will evaluate the site assessment information to create a bespoke design plan to meet your needs. The design will include all necessary engineering & electrical drawings and include a review of site items such as site safety, logistics and installation schedule of works programme to work around your business' needs.

**Project Management and Installation** - Professional project management processes are critical to the timely and effective delivery of projects. Our team will leave no stone unturned in planning and carrying out works at your site(s). So, you can be rest assured that our team of project managers and installation team of qualified engineers will deliver the project as planned and agreed. We will manage all aspects of your project, with emphasis being on expert workmanship carried out safely and to the highest standards.

**Service and Maintenance** - We carry out full servicing and maintenance of our solutions where needed. Providing necessary checks and maintenance to ensure each of our solutions perform at their optimum level. All service and maintenance regimes are carried out in accordance to manufacturers specifications. Some solutions may include remote system monitoring and optimisation undertaken by our qualified engineers.



# Quality Policy

We continually aim to provide excellent services to our customers and deliver solutions & projects both on time and within budget. We operate under a Quality Management System that has attained ISO9001:2008 certification.

## We are committed to:

- Consistently achieving and improving the Quality Management System
- Continually improving the effectiveness of the Quality Management System

## We have a continuing commitment to:

- Ensure that customer needs and expectations are determined and fulfilled with the aim of achieving excellence in customer satisfaction
- Communicating throughout the organisation the importance of meeting customer needs and legal requirements
- Establish the Quality Policy and its objectives
- Conduct management reviews of the effectiveness of the implementation of the Quality Management System
- Ensure the availability of resources

All personnel understand the requirements of the quality policy and abide with the contents of the quality manual. In addition to all UK and EU legislation and regulations, Emissis complies with all legislation specifically related to its business activities.

We constantly monitor the quality performance and implement improvements where appropriate to ensure our quality policy's continuing suitability.



# Environmental Policy

Emissis is committed to preventing pollution and to complying with all relevant environmental legislation, regulations and other environmental requirements relevant to each region of the world we operate within.

We regularly evaluate the environmental impact of our activities, products and services and we strive to continually improve our environmental performance in relation to changes in best practice and legal requirements.

## It is our policy to:

- Minimise the use of energy, water and natural resources
- Minimise waste through prevention, re-use and recycling where possible
- Dispose of waste safely and legally
- Avoid the use of hazardous materials, where practical
- Work with environmentally responsible suppliers
- Prevent environmental damage and minimise nuisance factors such as noise and air pollution

We will define environmental objectives, targets and improvement actions that are related to this policy and to our significant environmental aspects. We will regularly evaluate progress.

We are committed to providing relevant environmental training and promoting environmental awareness to employees and, where appropriate, to suppliers and to communicating our environmental performance.

We will implement processes to prevent environmental non-conformities and to ensure that we are prepared to deal with potential environmental emergencies.

This policy will be regularly reviewed and updated to take account of organisational priorities and changes, environmental legislation and best practice.



## Quality and Compliance certification

ISO 9001 - 2015 (Quality Management System) for the Supply, Installation and maintenance of electrical power resilience and energy management equipment. Certificate number 86662021.



ISO 14001 - 2015 (Environmental Management System) for the Supply, Installation and maintenance of electrical power resilience and energy management equipment. Certificate number 110792021.



NECEIC approved electrical contractor meeting BS7671 regulations. Certificate number 607974000.



Constructionline. Pre-qualification system and standards for public sector and private procurement. Registration number 00315887.



SafeContractor Approved - Alcumus Certificate number UG3970



# Portfolio

We have enjoyed working closely with many private and public businesses both large and small over the years, we pride ourselves on expert workmanship and excellent service keeping customers delighted. Here are just a few of them...





## We're ahead of the game

We deliver a powerful suite of solutions that reduce your carbon emissions, save you money with lower energy bills and generate revenue from being a more flexible energy user with the help of today's leading technology.

# Contact

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