



# SUSTAINABILITY TODAY

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energy | water | waste | recycling | sustainability



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TOC DOC  
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For more information about these portable units or our range of continuous measurement probes email us at [sales@photonicsmeasurements.com](mailto:sales@photonicsmeasurements.com) or give us a call +44 (0)28 9210 6263

## Photonic Measurements

Photonic Measurements is pleased to donate a UV254 Go! to the SAFEWATER Project, a £6 million research project into low-cost technologies for safe drinking water lead by Ulster University.

Ulster's team extends across several universities in Colombia, Brazil, and Mexico whose goal is to provide scientific research into the development of low-cost water technologies for water disinfection treatment.

Photonic Measurements' Kevin Neill is pictured with, (left) Professor Tony Byrne, the principal investigator and (centre) Dr Pilar Fernandez-Ibanez, leader of the work package 3 for developing low-cost treatments and contributing to the activities relating to the building and dissemination of the project.

Visiting the office, they discussed the challenges and rewards SAFEWATER continues to overcome and achieve.

The UV254 Go! will assist with measuring water



samples in developing regions in Colombia and Mexico, to supply safe drinking water for families, improve quality of life, increase in economic development and significantly reducing waterborne diseases.

For more information, please get in contact at: [info@photonicsmeasurements.com](mailto:info@photonicsmeasurements.com) or call us on +44 (0)28 9210 6263.

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# Lührfilter Ltd.

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## Tridonic wireless technology

In the Temple de Lutry stringent requirements had to be met for connecting the numerous LED light points to a lighting control system. "In view of the 1,000 year old structure of the church, laying power or data cables was absolutely taboo," says Yannick Le Moigne from lighting design office Senseco.

This means that only a wireless solution was an option. Each lighting component has therefore been equipped with a basicDIM Wireless control module from Tridonic, acting as a node in a Bluetooth network with a mesh structure.

Thanks to the compact Casambi Ready basicDIM Wireless modules, setting up a light management system is very easy. Once connected with the LED drivers of the luminaires to be controlled, they automatically establish a network with up to 127 light points. The modules come with a configurable 1 10 V interface and a DALI interface as well as a switchable relay contact. Optional sensors can be integrated. In the Tridonic 4remote BT app, the networked luminaires can then be grouped together and lighting scenes can be created and saved.

In the Temple de Lutry there are scenes for services,



for musical and literary events in the choir or the nave, and for the popular Bach concerts. One tap of a finger in the app is enough to retrieve the desired configuration. The battery-powered basicDIM Wireless User Interface is also used. This low-profile device in a switch format can store four scenes and fade luminaires up and down.

Contact  
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## MP supports launch of Reconomy's latest Sustainability Report

Member of Parliament for Telford, Lucy Allan MP, has joined employees of leading Telford-based business, Reconomy, at the launch of its latest Sustainability Report.

Covering the 2018/19 financial year, the report outlines many of Reconomy's major achievements over the period and reflects its ongoing commitment to fully integrating sustainability into all its activities. In addition to measuring and detailing Reconomy's progress against its Social, Environmental and Business Value sustainability goals, key highlights from the report also include:

- ▶ A commitment to reinvest 1% of profit before tax (PBT) into its social value programme
- ▶ 80% of supplier spend with SMEs, generating £70 million worth of social and economic value
- ▶ £306,258 of social value delivered in 2018, our objective is to raise £1m in 2019
- ▶ 32% of employees participating in community volunteering activities
- ▶ 100% renewable energy used at Reconomy's head office
- ▶ Zero waste to landfill achieved for over 80% of Reconomy's Business and Industry (B&I) customers
- ▶ 19% reduction in carbon intensity
- ▶ £158m revenue achieved (pro forma for 2018)



Reconomy is the UK's leading provider of outsourced waste management and resource-led services. During a visit to the company's head office on Stafford Park in Telford, Lucy Allan MP met with senior members of the Reconomy team, together with its sustainability champions, volunteer coordinators and mental health first aiders.

Reconomy's 2018/19 Sustainability Report can be viewed here: <https://www.reconomy.com/sites/default/files/Reconomy%20Sustainability%20Report%202019.pdf>



## General sewer network improvements

NMCN PLC were tasked with improving the sewer network that runs through the village of Kirk Hallam. Using the Pulsar UltraTWIN controller and 2 x dB10 Transducers, they were able to gain successful measurements of both the main trunk sewer and the water levels in an offline shaft tank.



triggers a relay in the panel which starts the pump. Once it has reached the stop level another relay is triggered, and the pump is stopped.

In times of heavy rainfall/storm conditions, the water levels in the sewer rise, a pre-set weir is breached upstream and the flow cascades via a section of stainless-steel pipework into the new shaft.

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NMCN PLC works in partnership with its customers to deliver major built environment and critical national infrastructure projects across the UK. Within the village of Kirk Hallam, Derbyshire, it was responsible for sewer network improvements, with the aim of alleviating the risk of flooding, of 15 properties located within the village. The scheme carried out by NMCN PLC, on behalf of Severn Trent Water, included the installation of an offline stormwater shaft tank, which doesn't receive constant flow to pump away and only comes into operation during long periods of rainfall/storm conditions – a common application throughout the UK water industry.

A Pulsar UltraTWIN controller and 2 x dB10 Transducers were installed, to measure the 7.5 metres down into the shaft tank and the downstream sewer which measured 6 metres deep. Pre-set levels are built into the controller and once these levels are reached, it

## Take control of emissions on site: Casella Guardian2 with VOC monitoring

After decades of neglect, the result of land pollution has reached a level of significance that is now impossible to ignore.

The remediation of contaminated land sites can prove to be a challenging undertaking; however, effective boundary monitoring solutions can help to mitigate any environmental issues during construction by effective measurements. Casella demonstrates its commitment to reducing environmental risks with the new Guardian2 site boundary monitor, designed to help site management remain compliant with emission levels, using remote monitoring and reporting of noise, dust

and vibration levels and now includes the measurement of Volatile Organic Compounds (VOCs)

The innovative Guardian2 is equipped with photoionization detectors (PID) and measures for VOCs up to 6,000ppm (parts per million), assessing the emission limits and air quality of an area. VOCs are organic chemicals known for their volatile and harmful properties that leak into the ground leaving the top soil of the land polluted. The levels need to be assessed and continuously monitored to ensure site safety and well-being of the workforce and surrounding areas.



Casella is dedicated to reducing occupational health and environmental risks, and supporting businesses in solving their monitoring and analysis needs.

[www.casellasolutions.com](http://www.casellasolutions.com)

## The Energyst Event Review Top 10

### Delivering Net Zero

Decarbonising the economy is the challenge of our times. To deliver Net Zero requires immediate and sustained action across all sectors. Industrial and commercial businesses will be required to perform much of the heavy lifting, alongside local authorities and the public sector estate.

Our content-led event tackles both the latest energy insights and explores how the market is rapidly changing, across all conference streams. Debates on how to deal with an evolving energy world on the road to Net Zero and discussions on practical issues ensure an event worth attending.

The Energyst Event, held at The National Motorcycle Museum,

### the energyst event

Birmingham, from 1-2 May 2019, discussed both challenges and solutions, enabling end-users to meet partners in a content-led environment that can help visitors decarbonise their operations, today, tomorrow and out to 2050.

Whether visitors worked for a major energy user, energy intensive user or an SME business using less than £250,000pa on energy, they found our content-led event well worth attending.

Delegates who gained the most from attending included those who work in energy and

sustainability departments, energy procurement teams and engineering & facilities departments, tackling energy and carbon management alongside reduction strategies daily.

The Energyst Event moves to Silverstone's Wing next year from 28-29 April 2020. This is our pick of the best exhibitors from this year's show, listed here in alphabetical order: IMS (Industrial & Marine Silencers Ltd), Wilson Power Solutions & ZTP. Further details can be found on this page.

[www.theenergystevent.com](http://www.theenergystevent.com)

### Express delivery for standard rated supply transformers

Sometimes there's simply no time. We have listened to our customers and invested in an increased level of 'in stock' transformers (box to box) for 24 hour or 48 hour deliveries. Our stock transformers are available on a first come first served basis and include both standard Eco design compliant (Tier1) transformers as well as our industry leading super low loss amorphous transformers (exceeding Tier2).

All stock transformers for next day/48 hours delivery are offered as 'box-to-box' type and come with the following base specification:  
 ▼ HV off load tap changer with additional tap setting (±2.5%, ±5.0%, +7.5%)  
 ▼ Bottom entry HV cable box



suitable for 1 x 3c cable  
 ▼ LV cable box suitable for 3 x 1c cable per phase and neutral

Wilson E1 range (Eco Design Tier 1 compliant, liquid filled distribution transformers) with the following ratings: 500kVA, 800kVA, 1,000kVA, 1,250kVA, 1,500kVA, 1,600kVA, 2,000kVA, and 2,500kVA.

Wilson E2 super low loss

amorphous range (Eco Design Tier 2 compliant, liquid filled distribution transformers) with the following ratings: 500kVA, 800kVA, 1,000kVA, 1,250kVA, 1,500kVA, 1,600kVA and 2,000kVA. With a dedicated production team working on the shop floor here in Leeds, we can even cater for accessories at short notice but delivery times will stretch out by one or two weeks depending on our factory loading.

For all other ratings (at standard specifications) or if stock levels have been depleted, our typical lead times are between 6-8 weeks. Please call us on 0113 271 7588 or email: [info@wilsonpowersolutions.co.uk](mailto:info@wilsonpowersolutions.co.uk) to learn more.

[www.wilsonpowersolutions.co.uk](http://www.wilsonpowersolutions.co.uk)

## ZTP's software solutions

ZTP, the energy management and software specialist firm that enhances business performance and energy management through the provision of transparent and innovative support solutions, made its first appearance at The Energyst Event in May 2019.

The event presented the perfect environment to debut ZTP's revolutionary platform, Kiveev, designed to digitalise the procurement and management of flex power and gas contracts, enabling users to make more informed and better trading decisions, thus mitigating risk and saving money.

Kiveev arrives at a time of increased energy market volatility, and empowers those responsible for energy management and procurement. Based on ZTP's work and discussions with clients and contacts from across multiple sectors, and other key industry stakeholders, it identified the common denominator that many had no system in place to monitor and forecast their energy usage, analyse current market prices or build in risk factors, which are key challenges in this era of increased accountability. ZTP therefore designed Kiveev to help users significantly enhance how they manage energy



together with maximising savings on their energy use and costs across their multi-site, mixed-use development portfolios.

For more information on how ZTP's energy industry leading software solutions can help your organisation, visit the website at: [www.ztpuk.com](http://www.ztpuk.com) or call 020 3957 6010.

## Retrofit SCR/SCRT Technology from IMS for Stage V and MCPD

IMS have developed a combined DPF+SCR/ASC Reactor with an upstream DOC and Hydrocarbon Injection to elevate the exhaust gas temperatures for active regeneration of the Wall-Flow DPFs in the lower chamber of the reactor.

The SCR+ASC in the upper chamber is close coupled to the DPF on a central flange which allows both to be removed together for servicing/maintenance.

The AdBlue Mixer Pipe is embedded to

reduce the space envelope. Its 'Airless AdBlue Injection' means no compressor is required. Having two separate chambers allows for the Inlet/Outlet pipes to be positioned on either end of the reactor.

For MCPD the DPFs can be exchanged for SCR catalysts which will double the capacity for NOx reduction providing approximately 95% reduction in NOx. HS2 and the London NRMM LEZ will require Stage V from 2020 and all generators participating in the Capacity



Market will require MCPD Compliance.

IMS can provide a turn-key solution together with AdBlue Dosing and NOx monitoring and an acoustics package if required.

For further details, please contact:  
 T +44 (0)1509 506792  
[sales@silencers.co.uk](mailto:sales@silencers.co.uk)

IMS (Industrial & Marine Silencers Ltd) is the UK's leading manufacturer and supplier of exhaust gas silencers, emission control technology, acoustic enclosures, air inlet & extract attenuators and acoustic doors



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# Prime Hybrid Energy rethinks energy solutions

**A**t Sustainability Today we are aware of the constantly evolving nature of the business and industrial markets. In keeping with this we strive to bring our readers the most innovative companies and solutions providers. Subsequently, we have chosen for this issue's Energy Company of the Month Prime Hybrid Energy. Prime Hybrid Energy is reimagining the manner with which we can produce and store energy and cutting the cost of doing so.

Prime Hybrid Energy is saving customers nationwide 50-80% on their energy bills. The company, which was established as an independent subsidiary of AforeUK two years ago, has since expanded its horizons and garnered a gleaming reputation as a forward-thinking energy solutions provider. The company reaches both private and commercial markets and works closely with social housing organisations to help solve fuel poverty and reduce ever increasing demands on the grid.

The significance of being environmentally conscious when finding energy solutions is increasing. With energy sources running low and the damaging effects current energy sources have had on the environment becoming increasingly apparent, more and more businesses are trying to incorporate or provide cleaner and greener solutions. Finding these solutions however requires a great deal more than simply wanting to. An unwavering dedication to research and development is essential to securing the most viable, cost effective and environmentally driven energy solutions.



Prime Hybrid Energy designs and manufactures hardware that in turn couples with its in house designed software and battery technologies. This greatly minimises potential losses and helps work towards grid neutrality, reducing grid dependency and ultimately contributing to a cleaner environment. As a result, the company has won the Energy Capital Innovation Challenge, a prestigious award offered only to companies of the highest calibre. This kind of recognition is indicative of the kind of future that Prime Hybrid Energy surely has ahead of it.

Prime Hybrid Energy's domestic system is vertically integrated meaning they manufacture the hybrid inverter, batteries, metering solution and, of course, the software. This can then all be controlled by the Cloud-based platform [myenergycloud.com](http://myenergycloud.com). This



enables the system to work individually or as a group to form a virtual power plant, to enable peer-to-peer trading or to take part in the commodities market, whichever is best for the client.

The software that the company designs and manufactures is bespoke for commercial systems, and made to fit the exact requirements of the customer in question. Listening to the needs and wants of the customer is integral to the success of any business, but when attempting to save people money, keeping the customer at the centre of the business is especially imperative. Each system produced by Prime Hybrid Energy will be site specific and so making sure that the customer is fully involved in the design and development process is crucial to producing the most effective solution. Subsequently the company offers a consultancy service aimed at clarifying the key performance points of the system needed and to secure the most cost effective solution.



Once a system is designed, developed and installed Prime Hybrid Energy provides a market leading after sales service. The company monitors its customers' systems on their behalf and reduces necessary down time to the very minimum. The company also has links worldwide with approved installers which allows for a rapid reactive maintenance and a quick turnaround of any problem. The company can also JV, part finance, 100% finance or provide a combination of all options. Being confident enough to stand by its products with its own capital proves to customers that Prime Hybrid Energy can be well-trusted.

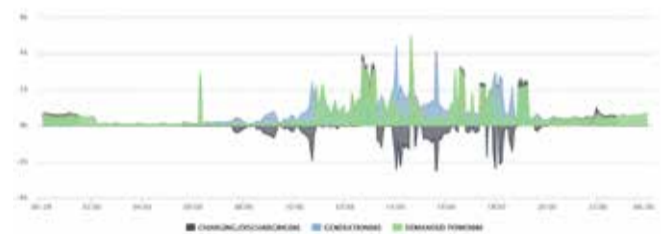
Prime Hybrid Energy, together with installation partner Avonside Renewables and distribution partner Smith Bros Doncaster, has recently landed a contract for the largest social housing renewables project of its kind in the UK. The project is being orchestrated by Together Housing and is based in the Blackburn area. Prime Hybrid Energy is supplying the entirety of the project with its hybrid inverter, battery storage, metering and monitoring solutions, a sure testimony to the brilliance of the company's systems. The ambitiousness with which Prime Hybrid Energy takes on projects of this size is what has come to be expected of a company of its magnitude. The company is also in talks with a major energy supplier and one of the world's largest financiers regarding supplying the hardware for their energy solutions.



Jason Ware, Managing Director, Prime Hybrid Energy

After having already won much popularity and garnered a reputation as a reliable and trustworthy energy solutions provider, the future looks nothing but bright for Prime Hybrid Energy. Despite the constantly changing nature of the market, Prime Hybrid Energy remains flexible and adaptable. This allows it to constantly provide solutions to a number of different customers in a number of different situations. The company plans on expanding its network and building new and exciting relationships and helping more people save time, money and the environment when looking for new energy sources.

For more information on Prime Hybrid Energy, visit its company website or get in touch via the details listed below:  
T 01283 528108  
[www.primehybridenergy.com](http://www.primehybridenergy.com)





# Cole-Parmer: A trusted supplier partner for over 60 years

**E**stablished in 1955, Cole-Parmer is a leading source of laboratory and industrial fluid handling products, instrumentation, equipment and supplies, all of which adhere to the highest standard of quality and usability. With paramount expertise in temperature measurement control, electrochemistry and fluid handling, the company has a proven track record of providing its customers with the most innovative and efficient solutions and service. Cole-Parmer's products are sold and distributed worldwide through an extensive network of international dealers and company-owned customer channel outlets.

Founded by partners Jerry Cole and John Parmer in 1955, the company was built on simplicity and clarity. With no budget to account for the employment of additional workers, the pair invested heavily in advertising, inventory and a 1,200ft<sup>2</sup> loft in Chicago. The simplicity of the business strategy allowed for Cole and Parmer to offer customer service and technical assistance at a standard that stood out (and still does) from their competitors while simultaneously providing customers with the broadest selection of products available.

By 1960, Cole-Parmer's 1,200ft<sup>2</sup> loft had been replaced with a newer 12,000ft<sup>2</sup> facility, and eight years later the company again transitioned to a 47,000ft<sup>2</sup> location allowing for exponential expansion. The very same year Cole-Parmer purchased globally reputable Masterflex<sup>®</sup> peristaltic pumps followed closely by the purchase of Gilmont<sup>®</sup> Instruments and Manostat<sup>®</sup> Pumps. These expansions and acquisitions improved Cole-Parmer's ability to offer its customers great products at reasonable prices.

The rapid growth the company saw throughout the 50s and 60s enabled the company to set its



sights on a more global scale, and in 1972 Cole-Parmer established its international divisions, which today encompass a network of more than 80 international dealers spanning more than 160 markets, as well as a number of corporate-owned facilities in key markets around the world. These moves helped cement Cole-Parmer as a key supplier partner within the Fluid Handling, Test & Measurement and Biosciences sectors.

Today, the company is headquartered in Vernon Hills, Illinois, and has numerous manufacturing sites worldwide alongside an equally as notable number of customer support locations in the US, Canada, UK, France, Germany, Italy, Australia, India and China, amongst others. As the global reach of Cole-Parmer continues to grow, the company remains focused on deploying the resources necessary to grow in size and improve the quality of its product selection whilst continuing to offer a level of support unmatched in their key industries.

John Batts – a Category Manager with Cole-Parmer – tells us, "In each of our product segments and in each industrial sector we offer a number of benefits to our clients. Our primary focus is on our Proprietary Products – products and brands that we manufacture ourselves. These products range from standard laboratory benchtop instruments used for everyday chemical and reagent processing, to specialised test and measurement devices capable of measuring and controlling the physical or chemical characteristics of substances, to our array of fluid handling instruments. Coupled with the supplier relationships we have forged that allow us to distribute world-recognised brands, Cole-Parmer brings to the table an amazing assortment of products and a level of service that you truly cannot find elsewhere."

Central to Cole-Parmer's value proposition to its customers is the tremendous line-up of self-manufactured pumps for nearly any application. Their pumps are engineered with the expertise and accuracy one can only come to expect from a company of Cole-Parmer's calibre, designed to deliver a performance that outclasses other pumping systems on the market.



John Batts, Category Manager, Cole-Parmer

To complement its range of pumps, one notable mention – and clear advantage – Cole-Parmer offers its customers is its comprehensive line of Masterflex tubing. The Masterflex tubing is custom extruded with the utmost precision to exact tolerances seldom found among other companies' portfolios. Additionally, Masterflex tubing is available in over 20 different tubing formulations, which collectively present customers with the opportunity to pair their application parameters with the best tubing option that matches all critical requirements.

Recently, Cole-Parmer introduced the world's first Cloud-based pump technology: MasterflexLive™. MasterflexLive enables its users to efficiently monitor and control their pump from almost anywhere, limited only by access to and the strength of the available internet connection. Customers can check on the current status of their pump, control the majority of the pump's functions, and receive mobile alerts in the event of the pump stopping before the assigned stoppage time – all of which is achievable from any internet-connected device such as a smart phone or tablet. The conveniences and ease of use that MasterflexLive presents renders the Cloud-based technology ideal for pumps located in isolated locations or clean rooms and various other similar circumstances, where deploying MasterflexLive-enabled pumps can save the customer time and money.

Cole-Parmer is always focused on devising, developing and manufacturing new products and new technologies, as John Batts explains. "Our engineering staff collectively has decades and decades of experience working with the technologies that serve as the foundation for our products. Our engineers are truly some of the best in the business – in any business, really. And they work every day on new product development. Knowing what's in our pipeline, I am excited for our clients to be introduced to



the products we will soon release to the market! While somewhat cliché, we truly are all about helping customers achieve success. Our goal is to provide great products upon which our clients can rely. That requires top-quality hardware coupled with tremendous engineering expertise and technical support – and that's what Cole-Parmer offers. It's a unique, but winning, formula for doing business."

Cole-Parmer has secured its place as an industry leader, strengthening its reputation through the constant care and attention it applies to both the development of its products and the support it offers its customers. The future for the company looks as bright as its history has been, and further product development and business expansion is most definitely ahead. There are few companies that can offer a product range as diverse or customer satisfaction as apparent as Cole-Parmer. For more information on the company, or to speak to someone directly, see the details listed below.

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# Helping to eradicate diseases of poverty



We currently have an engineer on board called Osman who was actually a patient on the ship 15 years ago when the ship travelled to Sierra Leone. Now he is giving up his time to give back to the ship that treated his burns."

Conditions requiring surgical treatment kill more people in low-income countries than HIV/AIDS, TB and Malaria combined, with five billion people having no access to safe and affordable surgery when they need it. This is where Mercy Ships can help. As well as providing thousands of urgent operations on its floating hospital, Mercy Ships also works closely with the host countries to improve the way healthcare is delivered, offering training and mentoring of local medical staff and renovating hospitals and clinics.

"We work with some of the poorest areas of the world," explained Bryony. "The ship has just arrived in Senegal, and we have recently signed an agreement with Sierra Leone. Mercy Ships partners with each country we visit so that we can tailor our programmes to exactly what each country's need is. Our aim is improve the standards of healthcare to the point where we eventually do ourselves out of a job."

Indeed, the fundamental aspect of Mercy Ships' mission is to address more than the immediate



needs of each country it works with. It wants to strengthen an area's healthcare system and drive long term change, transforming lives not just for their patients but for the nations they serve.

"We do this in a number of ways," explained Bryony. "We reduce the immediate surgical backlog in each country by providing free surgeries on board the ship. We also run training and mentoring programmes for local professionals both on the ship and in local hospitals, as well as renovating local facilities and donating equipment so that there is an improved infrastructure left behind. Finally, we research the long term impacts of the work we carry out, so we can continue to improve and learn from every field service."

Indeed, Mercy Ships' mission to leave a lasting legacy has been manifested in a number of ways. "One great example of the real change our work can bring about is through our partnership with Guinea. The last time we docked there in 2013, there were over 400 children suffering from a cleft lip or palates. We trained a local surgeon in the procedure to address this, who then trained two others. When we returned last year, we found only six children with the same problem."

Since being founded in 1978, Mercy Ships has



worked in over 56 countries, providing services that have been valued at over £1.2 billion, a figure which indicates the overwhelming importance of the services the charity provides. More importantly, it is not only those with medical skills who can help maintain this incredible work. "Only 50% of the roles on board the ship are medical as we need all sorts of skills to operate a world class hospital and training facility," explained Bryony. "We need volunteers with a range of skills from able seamen to captains, engineers to cooks and even hairdressers and photographers. If you think you can volunteer then please visit our website."

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www.mercyships.org.uk

**Sustainability Today is proud to announce that Mercy Ships UK has been selected as our Charity of the Month, for its pioneering dedication to improving healthcare in some of the world's poorest countries, with a vision to eradicate diseases of poverty.**

Established 40 years ago by Don and Deyon Stephens, Mercy Ships opened its UK office in 1997, based in Stevenage. The real work, however, takes place on board the 'Africa Mercy', a hospital ship crewed by 400 volunteers.

"Our volunteer crew come from all over the world," explained Bryony Doughty, Head of Marketing. "They come from over 40 different countries including 20% from African nations.



## Quarrying & Bulk Handling News

# DUO Equipment improves sand processing at Binnegar Quarry

Located on the Puddletown Road, near the town of Wareham, Dorset Binnegar Quarry is managed by Raymond Brown Quarry Products Ltd (RBQPL), a division of the Raymond Brown Group.

Extraction and processing of sand was previously in operation on the north side of the road on a larger site of 100 hectares for a number of years which finished in September 2018. Prior to that RBQPL had applied for a licence to continue extraction on the south side on a smaller site of 20.75 hectares which contained reserves of 2.6 million tonnes. This will in effect be worked over the next 10-15 years with possible extensions at a later date.

### A successful tender

With the project awarded to the English and Welsh dealer for Terex Washing Systems (TWS), industry leading specialist DUO Equipment (part of DUO Group Holdings Ltd) can offer innovative wash plants and water management solutions which are also complemented through its dealership of Spanish manufacturer – Advanced Mineral Processing Systems (AMP).

As material at Binnegar consists of predominantly differing qualities of sand with lignite present, DUO Equipment based its plant design around the Terex®



Aggresand™ 165 Modular Wash Plant, and, as there were quantities of lignite on-site, a single TAK Lignite Hydro Classifier was included to remove the lignite element from the fines fraction. Additionally, to achieve a desired finer end product, an AMP Compact Fines Sand Plant was included in the specification to achieve this.

### Sharp sand processing

Capable of 150tph the plant is currently operating at 120tph; as-dug material is fed into the 12m<sup>3</sup> remote control tipping grid which is then fed up an inclined feed conveyor onto the top deck of the 4.9 x 1.5m

Double-Deck Rinsing Screen. Fixed at an 18° working angle the top deck acts as a relieving screen to keep the pressure off the bottom deck. With none of the gravel fraction being sold, oversize (+20mm) is fed onto a side conveyor to stockpile. The main product, sand, then falls through the bottom deck which is then pumped up to the twin hydro cyclones of the sharp sand plant. Consisting of a high-energy 3.7m x 1.5m dewatering screen and one 200/150 pump for sharp sand, the specification is completed with one 750mm AMP conical bottom hydro cyclone hydro vortex.

A second unit, a 750mm AMP flat bottom hydro cyclone hydro vortex, enables an alternative blending process which eliminates any overloading on the AMP Fines Sand Plant and cuts the sand higher up the grade.

A specially designed rubber-lined underflow box allows a single concrete sand fed via separate conveyors to stockpile. All screen media (polyurethane modules) was supplied by Tema Isenmann.

### Lignite plant

Situated above the lignite removal plant, the hydro cyclones then remove the ultra-fine particles, taking them from the top and feeding a concentration of sand into the TAK. When the sand settles in the TAK, a clean water upstream current is introduced from the bottom, and then by moving the set point up or down you can then control precisely what the grading is at the bottom end of the sand and how much you float off.

### AMP Compact Fines Sand Plant

The plant at Binnegar also incorporates an AMP Compact Fines Sand Plant to provide the desired finer end product. The plant consists of three main modular components – a pump set, twin hydra cone assembly and a dewatering screen.

At Binnegar water is recirculated through 3 lagoons. Everything is sent back up to the plant from the main silt lagoon which weirs over into a polishing pond and subsequently over into the fresh water pond.



### Cutting edge control system

The control system for the Binnegar AggreSand™ wash plant is stored in a centralised cabin on the site, which is one of the options offered by DUO Equipment through TWS on all AggreSand™ installations. Alternatively, the panel can be mounted onto the machine, all of which are pre-wired. This option exemplifies the flexibility of TWS and DUO and the AggreSand™ concept to suit individual customer needs or preferences.

Binnegar now supplies a range of five quarry products including a building sand BS EN 13139, an asphalt sand BS EN 13043, a 0-2mm washed sharp sand BS EN 12620, a washed animal bedding sand and an as-dug sand.

Binnegar Quarry, part of RBQPL, is the latest project where investment in new technology is providing them with the means to provide sustainable and essential materials for construction and the built environment in Dorset and the surrounding areas.

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## Small footprint odour abatement system commissioned for WWTW

Engineering firm and pollution expert CSO Group has received client sign-off from Metropolitana Milanese SpA for its first Terminodour installation at the large San Rocco wastewater treatment plant, one of the three plants serving the city of Milan.

Metropolitana Milanese contacted CSO via its Italian distributors Euribia-Bentocablo SpA regarding a problem with odours in the sludge filter press building.

Although served by an existing extraction and scrubbing system the level of odour within the building had been deemed unpleasant for operators and prioritised for improvement.

The sludge press building has a volume of 3,900m<sup>3</sup> and contains three large sludge presses.

Following a public tender, Bentocablo was awarded the project in 2018. CSO provided a bespoke design of Terminodour system for integration into the existing ventilation system with some modifications to the distribution ductwork arrangements. The system was installed by Bentocablo and then commissioned by CSO.

There followed a period of testing using gas chromatography-mass spectrometry (GCMS) to ensure that the system met the performance criteria set by the client of an 80% reduction in the level of

total odour within the sludge press room. And this it duly did.

Colin Froud, Managing Director of CSO Group, commented, "We are delighted that our first installation of Terminodour in Italy has been executed so successfully, and yet has only increased the client's net power consumption by 160 watts, another low carbon footprint solution provided by Terminodour."

**Contact**  
T +44 (0)1732 700011  
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## Bluewater Bio awarded three consecutive phosphorus removal contracts



Bluewater Bio Limited, a leading provider of treatment solutions to the water industry, is pleased to announce that its high rate multi-media filtration technology, FilterClear, has been selected for three further plants by three different Water Companies in order to achieve compliance with tighter phosphorus consents. BwB will provide in each case a fully automated Tertiary Solids Removal (TSR) plant.

The Company will work with Severn Trent Water's ('Severn Trent') capital delivery framework partner, Costain/Stantec (CiM6), in providing a TSR plant at Ledbury WwTW, Herefordshire. This marks the Company's fifth contract with Severn Trent for phosphorus removal. For United Utilities ('UU') and Dwr Cymru Welsh Water ('Welsh Water') — BwB will deliver TSR plants at Barton WwTW and Dyserth WwTW, respectively. Mott MacDonald Bentley ('MMB') are in both cases the nominated Tier 1 delivery partner.

Ledbury WwTW is a medium sized activated sludge works, consisting of two crude oxidation ditches and operating in enhanced biological P removal (EBPR) mode, serving the market town of Ledbury, Herefordshire. The site currently has a population equivalent of 14,500 which is expected to increase to 20,000 at a 2028 design horizon. The works also receives a significant industrial load. The Company will provide a fully automated 4v2800 tertiary solids removal plant, capable of treating up to 132 L/s of flow, to enable the site to meet the new consent of 0.24 mg/L for phosphorus. The project is the largest UK FilterClear installation to date.

Barton WwTW, located north of Preston, is a trickling filter works with SAF and NTF stages. It serves a population equivalent of 6,600, expected to rise to 8,700 in the near future. BwB will provide a 3v1840 TSR plant capable of treating up to 44 L/s that once completed will enable United Utilities to meet the new TP consent of 0.5 mg/L. Delivery date is scheduled for July this year with estimated completion in October 2019.

The project at Dyserth WwTW, a trickling filter site in north Wales, is one of five P removal schemes awarded by Welsh Water to assess viable technology solutions to address the tightening of phosphorus consents. These advance projects, prior to their larger P removal programme in AMP7, will give DCWW and their Tier 1 partners valuable delivery and operational experience and guide their decision making progress in AMP7. Once completed, the FilterClear plant will treat up to 29 L/s and enable the Client to meet their new phosphorus consent of 0.37 mg/L.

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# TV show lifts manhole on sewer cleaning team

A popular TV show revealing the grimy side of life in Britain showed wastewater engineers working for Lanes Group battling fatbergs in London sewers. The highly-skilled and dedicated sewer 'flushers' were filmed tackling the large fat blockages on behalf of Thames Water for the documentary series Grime and Punishment.

Major challenges they face removing tonnes of cooking oil, fat and grease, congealed with wet wipes and other debris, were revealed on the prime-time Channel 5 programme. The new series of Grime and Punishment began on Thursday June 13th 2019 at 8pm. The Lanes and Thames Water sewer cleaning team was scheduled to be shown in action in episode 2 on 20th June.

Lanes is the wastewater network service maintenance

partner for Thames Water. Its trunk sewer walking team is at the forefront of efforts to keep London's sewers flowing freely. One sewer cleaning project filmed by the documentary makers needed a team of 10 personnel, using high-tech jetting and vacuumation equipment and a lot of elbow grease to clear a sewer that was 50% blocked with fat.

It took two days to clear the blockage along a 12 metre length of Victorian egg-shaped brick sewer in Rotherhithe, South East London, which was 1.2 metres high and 0.8 metres wide. Lanes personnel wore mini



digital camera to show viewers what conditions were like inside the sewer as they shovelled tonnes of gloopy fat into a powerful vacuumation hose.

Thames Water hopes the programme will encourage more people to observe its request to 'Bin it – don't block it' to keep sewers clear of unnecessary waste.

Contact  
T 0800 525 488  
www.lanesfordrains.co.uk

# PiE and AMR



Pharmaceuticals in the Environment (PiE) and Antimicrobial Resistance (AMR) are global challenges that are directly impacting the environment, wildlife and human health.

AMR arises when microorganisms (such as bacteria and viruses) mutate, following repeated or prolonged exposure to antimicrobial drugs (such as antibiotics and antivirals). As a result, a diminishing pool of antimicrobial medicines can treat these 'superbugs' and infections are persisting in the bodies of humans and animals, increasing the risk of spread to others.

PiE and AMR are closely interconnected. Increasing levels of pharmaceuticals are being detected in waterways due to irresponsible disposal, run-off from intensive farming and inadequate wastewater treatment. This pollution of surface and groundwater impacts water quality, available drinking water supplies, aquatic life, and facilitates AMR.

Assessments indicate that by 2050, deaths relating to AMR could reach a shocking 10 million.

The European Commission (EC) are considering measures to monitor and control pharmaceutical residues in the environment but there are no current regulations in enforcement specifically against antimicrobials. With the increasing number of people expected to be affected by AMR each year, a holistic approach from pharmaceutical manufacturers, governments, regulators and the public is required to ensure that the AMR is tackled effectively from all angles.

The 'Strategic Approach to Pharmaceuticals in the Environment' was developed by the EC earlier in 2019 and highlights six key areas in need of improvement including, production and disposal methods, as well as improving wastewater treatment processes to effectively remove pharmaceutical residues prior to discharging water to the environment.

The technology now exists to effectively remove pharmaceutical contaminants from water at 3 key areas: on-site at the source of medicinal manufacture and at the tertiary stage of municipal treatment for wastewater & for drinking water. UK based Arvia Technology Ltd have created an innovative system called the Nyex™-a which provides highly reliable pharmaceutical removal using a combination of adsorption and electrochemical oxidation processes in one system.

Unlike traditional treatment methods, Nyex™-a removal is targeted to the organic contaminants and fully mineralises them from the water. The process also requires no chemical dosing and does not produce any secondary waste (eg. sludge or spent carbon media) – features which all contribute to a reduction in operating costs and maintenance.

Nyex™-a systems have already been deployed to a site owned and operated by Anglian Water on effluent containing a range of over 60 priority substances; as well as various pharmaceutical manufacturing sites across Europe and Asia that are looking to upgrade their existing wastewater treatment processes in preparation for the inevitable implementation of stricter antimicrobial regulations.

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# Plastic: A valuable part of the circular economy

Anthony Brimelow, commercial director at Duo UK – which manufactures plastic mailing bags for major retailers including JD Williams, JD Sports and Tesco – explains the importance of taking a holistic view of the supply chain when it comes to plastic waste

Quite rightly, the use of plastic in the packaging industry has come under scrutiny over the past year, with a growing number of retail brands reviewing their entire supply chains to make them more environmentally friendly. Now, it may seem a conflict of interests for me, a director of a plastic packaging business, to welcome calls for improved eco-friendliness within the retail sector, but that's exactly our sentiment. We believe that packaging is a necessity, but that it doesn't have to put a strain on the Earth's natural resources.



The issue of plastic waste in the retail industry is one that should absolutely be addressed. However, treating it in isolation and eradicating plastic as a knee-jerk reaction without looking at the bigger picture could in fact lead to negative and unintended consequences across the supply chain.

For example, if we were to all move away from lightweight polythene mailing bags and replace them with cardboard boxes, it would significantly increase the number of pallets of stock required for the same number of packages – and therefore lead to more vehicles, more road miles and more CO<sub>2</sub> emissions.

#### Is 'plastic-free' a pipe dream?

Although many retailers have made promises to become 'plastic-free' in the next five or so years, it would be unrealistic to expect the industry to expunge plastic altogether. The fact is that plastic is resource-efficient, flexible, hygienic, durable and lightweight – and other materials available don't match those functional properties. Instead of getting rid of this valuable material from the supply chain, we need to take a holistic view and find ways to make packaging more sustainable, design it in a way that makes it reusable, and improve the infrastructure for it to be easily recycled on a national scale.

#### A sweeter alternative

At Duo, we've been working on just that. Since 2015, we've been manufacturing mailing bags from GreenPE – a plastic derived from sugarcane, which is a renewable resource. GreenPE mailing bags are chemically identical to regular plastic, so they have all the exact same properties and can be recycled the same way, but they avoid the use of finite fossil fuels. What's more, sugarcane absorbs carbon dioxide from the atmosphere as it grows, helping to reduce global warming.

To put it in numbers, around 412 million mailing bags were shipped in the UK in 2018. If all of these were made from GreenPE, as opposed to virgin polythene, 46,276 tonnes of CO<sub>2</sub> would have been saved – which is the equivalent of a plane flying around the world 10,000 times.

One of the growing number of brands that have made the switch to GreenPE mailing bags is Pink Boutique, a fast fashion retailer that recently became the first in its sector to do so. The company sends out thousands of orders on a daily basis so was keen to find a way to use resources sustainably, while retaining all the practical benefits that plastic offers. GreenPE ticked all of their boxes and slotted into their existing operations seamlessly.

#### Clever design

When it comes to the design of our mailing bags, one of the pioneering improvements we've made is the addition of a second glue strip. This means that when a customer wants to return unwanted items, they can use the same bag their order came in to send them back, without the need for additional packaging items. They simply pop the items back in the bag and use the second glue strip to seal.

#### Closing the loop

Naturally, recycling is a primary concern for us at Duo. While there are limitations when it comes to end consumers recycling their plastic mailing bags – something that will hopefully improve as the government takes greater heed of mounting pressures to improve recycling infrastructure – we've made great strides on the industrial side.

With our closed-loop recycling scheme, we're working with retailers to help segregate their waste polythene on-site – for example, when customers make returns – and bring that waste back to our factory. We then recycle this and make it into new packaging, ensuring that as little as possible goes to waste.

All of these measures have been painstakingly made with two clear and unwavering goals in mind: to reduce our dependency on finite resources, and to keep valuable plastic in the economy and out of the environment.

For more information about Duo UK, visit: [www.duo-uk.co.uk](http://www.duo-uk.co.uk) and [www.duogreen.co.uk](http://www.duogreen.co.uk)



## New 43 litre Enviropod

Leafield Environmental has launched a new range of stylish, slim Enviropods that it claims are ideal for use where available floor space is restricted.



With a small footprint and flat back that enables it to be sited against a wall, the new bin has a substantial capacity of 43 litres.

The Enviropod 43L comes with a choice of WRAP colour coded lid options to suit a wide range of waste streams, each with a relevant aperture and high visibility graphics that actually encourage recycling. An optional A4 signage kit is also available for those wishing to reinforce the recycling message.

Designed for internal use, as a stand-alone unit or in a group, the bin is suitable for use with or without a sack liner. For those wishing to use a sack liner, an internal sack retention feature ensures that the sack skirt is hidden from view at all times.

Rotationally moulded from resilient, self-coloured MDPE, Enviropods are highly durable and not to be confused with lightweight injection moulded alternatives that are easily damaged through rough handling and have a far shorter service life.

Contact  
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# Raising the IQ of the world's batteries

**F**ounded in 2006 by Simon Daniel and Chris Wright, Moixa is the UK's leading smart battery company, developing innovative products to facilitate smart energy storage and sharing.

The company has been developing intelligent battery products since its inception, with its first product being the USBCell, a convenient and award-winning USB-rechargeable AA battery. Since then, the company has continued to expand and has almost doubled in size over the last few years, now employing over 50 people with offices in both London and Manchester.

With the firm belief that raising the IQ of batteries will help the world achieve a renewable future, Moixa is a steadfast supporter of the move away from fossil fuels, and is helping to realise this goal by optimising the way we generate, distribute and conserve renewable energy with an acute focus on value for end users.

Having developed both hardware and software, Moixa can provide end-to-end solutions for the renewable energy sector. Over the last 20 years,



many areas of the UK have seen widespread use of solar panels powering homes throughout the day, and Moixa's solar batteries can be used alongside these solar panels to further advance their benefits.

Moixa's Smart Battery stores solar energy generated during the day instead of sending it back to the grid, which can then be discharged to power the home when the sun isn't shining. Along with this, the battery can also be charged at night to take advantage of off-peak tariffs. This combination can lead to a 50% reduction in energy bills. Newest Moixa's 4.8kWh smart battery model can be either retrofitted to existing solar panels or supplied along with solar panels sourced by Moixa.

In addition to this, Moixa offers GridShare, a customisable Cloud-based software platform



which connects storage devices to the grid to elicit smarter energy management. Using AI and machine learning, GridShare optimises power throughout the grid, thereby helping customers to maximise the value of their energy and generating a personalised charging and energy plan for each individual customer.

This smart software is also beneficial for companies. It can be sold separately to third party battery manufacturers, helping them to optimise existing batteries. Furthermore, it can act as an aggregator for utility companies to bring together multiple energy assets, offering an overall view of multiple devices. The software's analytical tools can help group asset owners understand the behaviour of the fleet and its interaction with the grid. Furthermore, GridShare acts



like a virtual power plant (VPP), helping the grid to maintain a stable frequency to avoid blackouts and relieve stress by absorbing excess generation from renewable energy.

As proof of its position at the forefront of innovation, Moixa was recently selected from 13,900 companies as a Global Cleantech 100 Company. Furthermore, this year Moixa has secured partnerships with world leading transport and technology companies, including worldwide car manufacturer Honda, that has partnered with Moixa to support its aims to electrify 100% of its European automobile sales by 2025. This partnership supports Honda's plans to develop an energy management solutions business for the continent that creates additional value for EV customers and power system operators.

To find out more information on Moixa's groundbreaking technology and exciting projects, head to their website or use the contact details below.

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## From waste heat to hot water

Industrial refrigeration systems with air-cooled condensers waste energy by emitting energy to the ambient air, according to SWEP, a supplier of compact brazed plate heat exchangers. By installing a desuperheater, much of this waste energy can be converted to hot water, with a wide range of applications, believes the company.

Brazed plate heat exchangers (BPHEs) are an integral tool that allow extra heat to be extracted from the refrigeration system. A BPHE, called a desuperheater, is inserted between the compressor and the condenser. This enables the BPHE to extract the heat from the gases or liquids before it goes into the condenser to be condensate (the liquid

collected by condensation).

Installing a BPHE helps to increase efficiency levels to achieve the demanding recent EU Ecodesign Directives that cover high temperature process chillers. Evaporators can operate at a range of temperature levels to meet the required demands for a variety of refrigerants.

BPHEs offer copper brazing as standard but also stainless steel & nickel as alternative brazing materials to meet the demands for various corrosive fluids.

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## Enertechnos hailed as clean-tech industry leader

UK cable innovator Enertechnos was recognised as a leader in clean technology and sustainable solution deployment at the Rushlight Awards. Enertechnos was awarded the prestigious Energy Environmental Award for their Capacitive Transfer System – the CTS – which promises to revolutionise the way we transport power.

CTS is a ground-breaking technology which reduces unnecessary carbon emissions from waste and losses in the energy system and maximises the output of renewable sources such as wind and solar.

Losses in the energy system total 1.5% of the UK's total carbon emissions and make up

enough energy to power an astonishing seven million homes.

By balancing reactance and capacitance, the CTS has been proven to have lower voltage drop, delivering more power from source to endpoint, thereby reducing emissions.

The CTS also tackles the problem of intermittency in renewables. The resistance in current cables means when wind and solar levels are low, there is not enough power produced to travel along the cables. Lower resistance and impedance in the CTS overcome this challenge and has the potential to increase the output of an offshore windfarm by more than 50%.



Dominic Quennell, Managing Director of Enertechnos, said, "This award is a testament to the dedication and hard work of our engineers who continue to push the boundaries by tackling waste and losses in energy – problems which were once seen as an inevitable part of transporting energy."

**Contact**  
**T 020 3865 6381**  
**www.enertechnos.com**



## Asset Management Company of the Month

# Putting you in control of asset management

**S**ustainability Today is proud to announce that AMX Solutions has been selected as our Asset Management Company of the Month.

Established in 2004 by Saeid Naelini and Will Thomas, AMX Solutions is an independent UK-based software development company, specialising in enterprise asset management software solutions for local authorities and private consultants across the UK, as well as international clients in the Middle East, USA, Canada, Europe and Malaysia.

The company's key product, Asset Management Expert (AMX), is inventory, inspection, maintenance and reporting software for infrastructure assets. The software was developed from the company's original offering, the renowned Bridge Management Expert (BMX) designed for the management of bridges and other related assets. After a growing number of customer requests for alterations and modifications, the company rebuilt its software and developed AMX, enabling customers to tailor the system to their own specific needs by making it fully customisable by the user.

The software can be adapted to work with any asset, and is now being used to manage bridges, highways, street lighting, flood risk and various other infrastructure assets. "The software does three main things," explained Laura Barnett. "It



ASSET MANAGEMENT EXPERT

captures inventory, which is a legal requirement; schedules any inspections that need to take place; and can program and schedule maintenance as needed. As assets are repaired, the software can record all the details of the work and its effects on the asset.

"An important benefit is that the software supports people to do what they want to do, how they want to do it. It opens up the ability for a customer to define and use their individual processes rather than defining it for them."

A growing area of expertise for AMX Solutions is in flood risk, where AMX can help to put the customer in full control of their flood risk asset management.

AMX ensures its customers have maximum knowledge about their flood risk assets, and can identify flood prevention strategies for their own region, along with the ability to provide essential data to national agencies as part of a collaborative approach to reduce the impact of flooding on wider communities. Indeed, AMX works with over half of the Welsh authorities for flood risk management, with one of the company's earliest customers being Natural Resources Wales.

After Schedule 3 of the Flood Water Management Act regarding sustainable drainage was made mandatory in Wales, local authorities' area of responsibility and workload increased significantly to ensure applications were correctly processed. Due to customer demand, AMX Solutions created a module for their software to



enable the management of applications by SuDS Approving Bodies. The applications are monitored throughout the entire process, from design, through build, all the way to the point where the local authority takes responsibility and adopts the assets, which then seamlessly moves into the existing asset inventory. What's more, AMX provided this modification free of charge.

"We always put the customer first; our growth and innovation comes from customer requests and needs, and so our software is always developing to address the latest challenges within infrastructure asset management.

"The company has evolved significantly over the last four years, and our AMX software is now web-based as well as a desktop app. We also provide a mobile app, to allow access to records and data



capture onsite which will then sync to the main database providing up-to-date, near-time data. We've grown rapidly in the last three years, with more people joining the team later this year. This is very positive for us, and just proves the validity and quality of the solutions we provide."

AMX Solutions will be attending The Flood Expo in September this year at the NEC, Birmingham, where they will be presenting a talk on 'Exploiting Asset Management for Sustainable Drainage' and promoting their new Flood Risk module. For more information, head to the website or get in touch using the contact details below.

**Contact**  
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## Sustainable Environmental Specialist Company of the Month

# Environmentally enhancing, efficient equipment



**H**ere at Sustainability Today, we have selected industry leading company Glasdon UK Limited as our Sustainable Environmental Specialist Company of the Month.

With an extensive knowledge range from the company's impressive 60 years in business, Glasdon Group Limited has expanded significantly since the company's inception. Established by Donald J Sidebottom MBE, FCIHT, the company was originally started as a one man business and now contains five companies: Glasdon UK Limited, Glasdon International Limited, Glasdon Europe Sarl, Glasdon Europe AB



and Glasdon, Inc.

Glasdon UK Limited provides an extensive range of award-winning litter and recycling bins, shelters, road safety products, seating products, water safety products, snow-clearing equipment and a diverse range of building systems. Glasdon UK Limited serves over 50,000 customers throughout the UK from their head office in Blackpool.

Working with customers such as government departments, public utilities, retailers and leisure companies, Glasdon UK Limited provides a whole host of environmentally efficient products. Since 1959, the company's mission has been to design, manufacture and supply innovative market leading products that enable its customers to contribute towards a cleaner, safer and more sustainable environment.

As a market leader in the design and manufacture of its award-winning street furniture products, Glasdon UK Limited also provides a dedicated customer care service. Providing an experienced team of sales representatives and technical staff, Glasdon UK Limited maintains a committed customer service



offering product demonstrations, inquiries and after sales services.

A notable recent development for the company is the Nexus Evolution. Set to revolutionise the waste management sector, the Nexus Evolution is an innovative, robust multi-stream recycling unit. Available in a variety of stylish colours, sizes and configurations, the Nexus Evolution includes 50 apertures such as cup recycling and confidential waste disposal. The Nexus Evolution also allows for graphics to be applied to the design of the unit, enabling customers to create a personalised touch to the product.

A narrow footprint makes Nexus Evolution the perfect fit for an abundance of environments such as shopping centres, educational campuses and offices where floor space is at a premium. Its



contemporary, symmetrical design also allows it to be approached from both sides in more open spaces. Flexibility in design is available, with an extensive list of options from wheels and lock kits to sign kits and aperture connector kits.

The company is extremely passionate about creating a sustainable future for the environment and is committed to consistently investing in the improvement of its products and providing excellent environmental performance.

In terms of future plans, the company will continue to integrate sustainable and ethical practices into its day-to-day activities, with the aim to be an economically, environmentally and socially responsible member of its local and global community. By continuing its mission in using recycled and recyclable material wherever possible in the design of the products, Glasdon UK Limited plans to further its environmental performance and is devoted to continually researching new sustainable technologies and manufacturing processes.

For any more information please see the details below.

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## Quick solution to stove pollution



Firemizer's answer to the burning question, will wood burning stoves be banned in the UK? Is the simplistic fuel saving mesh of special stainless-steel alloys that are patented and welded together the solution? The product when simply placed on the bed of your fire can reduce particulate emissions by up to a huge 72%.

Developed and manufactured in the UK by Microtex Products Limited, Firemizer could be the answer to increasing air pollution levels. As the manufacture of Firemizer produces 100 grams of CO<sub>2</sub> – the equivalent of 25 sugar cubes – but over the Firemizer's lifetime it will stop close to 30 tons of CO<sub>2</sub> from being released into the atmosphere.

Once in place, Firemizer reduces the burn rate and spreads the heat evenly across your fire to ensure all the fuel is burnt thoroughly, enabling you to enjoy your perfect fire for longer and cut costs on wood and coal consumption. The next step for the brand is to partner with stove manufacturers to tackle air quality.

Firemizer's mission is to bring more attention and awareness to air pollution while keeping the environment at the forefront of developing new ideas.

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# The renewable energy solutions experts

**W**ithin this issue of Sustainability Today, we have selected Waxman Energy, a dedicated solar & EV distribution company, as our Sustainable Energy Company of the Year.

Waxman Energy is part of the Waxman Group, a family run business that was first established over 60 years ago. Waxman Energy has gained unprecedented success since the company's inception and has become one of the UK's largest distributors of solar PV modules, battery storage and mounting solutions. Maintaining an expansive range of products Waxman Energy provides solutions for all residential and commercial solar installations.



Due to the challenges that are facing the UK solar market, many competitors and companies have had to close. Determined to ride out the storm, Waxman Energy has embraced the uncertainty and dominates the solar market through their relentless ambition and devotion to increasing their product portfolio and exploration of other market options including the EV market and product training.

Speaking of the factors that have enabled Waxman Energy to continue its growth during the harder times that the industry is facing, Sarah Wallace, the newly appointed Sales Director for Waxman Energy, noted, "Within the company and team, we are very proactive. Although there have admittedly been many challenges within the industry, we feel we have a strong working business model and that we ultimately know our main goal and focus."



The team at Waxman Energy is truly the driving force behind the business, offering a plethora of services and the company has become highly regarded as a one-stop-shop for PV solar installations. Stocking an all-encompassing range of equipment and products to assist contractors in the installation of PV energy systems, Waxman



Energy supplies: solar PV modules, grid-tied inverters, PV power storage, mounting systems, PV accessories and EV chargers.

From their head office in Elland, West Yorkshire, Waxman Energy looks after their customers from the initial design process to delivery. Using their shared expertise and technical knowledge the team at Waxman Energy provides the best consultancy and advice for their clients' solar project. With customer satisfaction being of the utmost importance to Waxman Energy, the company maintains a selection of specialist services including designs, technical help, quotation consultancy and an honest helpful support team. Waxman Energy goes the extra step forward in terms of its services and has invested in a purpose-built training centre, specifically designed to teach installers how to correctly install a range of products from battery storage to mounting solutions and EV chargers. "Our main focus," Sarah stated, "is to work with as many installers as possible. We offer a range of services including training sessions to make sure that installers have a long term plan."



Waxman Energy takes pride in the products that they distribute and is determined to provide the highest quality products available from a selection of the world's leading brands. Through the company's dedication to quality, it strives to create relationships with manufacturers and customers that are long-lasting, trusting and efficient, to showcase the quality and excellence that Waxman Energy encompasses.

In terms of latest developments for Waxman Energy, the company has created many valued partnerships in recent years with their most notable this year being their collaboration with Myenergi, which has enabled Waxman Energy to introduce the Zappi EV car charger into their product range. Zappi is an eco-smart EV charge point that features specialist eco charging modes adaptable for homeowners with grid-tied microgeneration systems. Working alongside the 'zappi' are the myenergi 'eddi' and 'harvi' products allowing homeowners to easily divert surplus energy around the home



L-R: Jonatan Ramos – Technical Support, Adam Lilley – Senior Graphic Designer, Ashley Kendall – Customer Support, Jemma Walsh – Marketing Manager, Cath Bracegirdle – Customer Support, Richard Waxman – Chairman, Sam Waxman – Managing Director, Joe Pape – Deputy Chairman, Liz Thomas – Office Manager, Sarah Wallace – Sales Director & Andy Hopkins – Operations, accept the Company of the Year Award from our journalist

and monitor through an in-house hub and mobile app.

Another notable partnership for Waxman is with leading manufacturing company VARTA Storage. A manufacturer of energy storage devices for both households and larger scale storage requirements, Waxman has introduced the battery storage system by Varta Storage into its product range and now distributes both the Varta Pulse 3 and Pulse 6.

Upon receiving the award for 'Company of the Year', Sarah commented, "We are really excited and proud to receive the award. It feels amazing to have achieved something like this and it is a testament to all the hard work and dedication spent helping to maintain Waxman Energy's market presence."

Praising her dedicated team, Sarah believes the achievements and success gained over the past year have all been down to the hard work and determination put in by the growing Waxman Energy team. "I'd like to thank everyone for all of their work," Sarah added, "and for us to continue the hard work into the future to gain even further success."

After an extremely challenging yet positive year for Waxman Energy, it is clear to see the company's devotion to the solar energy industry and their commitment to providing the most innovative solutions and products for energy efficiency.



For more information on Waxman Energy, you can visit their website or talk directly to their team over the phone or social media.

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