

ENERGY

Tech Review



SysMech

TOP
**SMART
ENERGY**
SOLUTION PROVIDERS
IN UK 2021

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*The annual listing of 5 companies that are at the forefront of providing
Smart Energy solutions and transforming businesses*

Smart Energy Management Made Easy

The 2015 Paris Climate Agreement Summit was undoubtedly a pivotal moment in human history. For the first time, leaders of 197 countries stood together and shared their commitment to curb climate change. Ever since the accord was signed, the participating countries have been significantly shoring up their efforts to reduce greenhouse gas emissions and introduce alternative sources of energy.

But as governments, energy service providers, and business enterprises constantly reinforce their sustainable future, they are also realising that it is not just about employing alternative energy sources. A step change is required to transition to maximise the use of renewable energy and the switch to electric vehicles, electric heating and distributed energy resources.

At the heart of this change is the need to process very large volumes of data from many disparate sources to enable real time monitoring and control of resources for Smart Energy grid and device management.

Interestingly, the company that is now helping governments as well as enterprises shed their uncertainties and embrace green energy through its robust big data solutions is SysMech (Systems Mechanics Limited). The company's solutions are specifically designed to integrate with a plethora of systems, leverage big data to keep track of the energy utilisation, and provide actionable insights to optimise the usage. With SysMech, clients gain the ability to effectively use their current energy capacities and save for future demand, while ensuring that all operational problems are addressed before they can lead to inefficiencies.

But, how it all started?

Before carving its place in the green energy sector, SysMech served as a big data solution provider for Tier 1 telecommunications companies. However, in 2018, the leaders at SysMech—Pete Godfrey, Chris Mathews, and Rob Green—realised the importance of smart energy management and pivoted the company's vision towards helping the world in achieving enhanced energy efficiency and net-zero carbon goals. Thus, SysMech expanded its portfolio, developing and delivering cutting-edge data-driven solutions for clients in the private enterprise and government sectors to promote smarter energy utilisation.

"Our expertise in big data gained from the telecommunication market gave us the perfect skills, experience, and technology stack to offer large-scale data solutions to the emerging green energy sector," mentions Josh Watson, head of product development at SysMech.

Zen Smart—The Road to Smart Energy Management

"The digitalisation of the energy sector is essential for reaching net-zero carbon targets, as it will enable organisations to transition to distributed energy sources and maximise the use of renewable energy sources," says Ben Caruana, the product manager at SysMech. Without a smart energy management in place, businesses, or even cities, for that matter, can find it almost impossible to control energy consumption and its costs.



This is where SysMech can help global organisations strengthen their commitment to greener energy goals. Specifically, the company's consolidated cloud-based, big data platform, Zen Smart, adds a vendor-independent, abstraction layer to client infrastructures, allowing them to seamlessly monitor and control their smart energy devices, third-party cloud systems, distributed energy sources (DERs), and other data sources.

What's more? The Zen Smart platform can be utilised by government agencies, energy service providers, and large enterprises alike to monitor thousands of devices, collecting data ranging from energy metrics and performance to device status. These insights gathered by Zen Smart allows clients to build a large-scale picture of their energy usage trends and to control devices for energy optimisation. Moreover, the platform utilises its in-built 'intellect' to detect faults across devices, generate actionable alerts, prioritise resolutions, and initiate automated remediation activities.

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Leading Clients to Success

It is not just the robust capabilities but also the highly-skilled and experienced workforce of SysMech that makes the company a market favourite among clients. The company understands the exact needs of its consumers. Based on their underlying architecture and the power of the Zen Smart platform, the engineers at SysMech design, build, and deliver the best of breed solutions for the government and private enterprise sectors.

In fact, owing to the company’s prowess in the green energy sector, SysMech has been chosen by Energy Systems Catapult to augment the capabilities of its Living Lab—an agile and scalable real-world test environment for businesses innovating in the home energy market. SysMech is integrating a robust, cloud-based digital platform with Living Lab, which will further bolster Energy Systems Catapult’s goal of upgrading the housing across the UK into digitally connected smart homes. This collaboration between the two companies will also help transform market arrangements, policies, and regulations, all for the net-zero carbon future.

Elaborating on the motive behind the collaboration, Simon Pearson, digital business lead at Energy Systems Catapult, says, “Decarbonising up to 30 million homes is a critical requirement to reach UK Net Zero carbon emissions by 2050. Smart home appliances and digital systems that enable consumers to switch to and use low carbon products and services will be key. The ability for consumers to have free

choice of services, providers and products is a key factor and requires a degree of interoperability that does not exist today. The Energy Systems Catapult Living Lab provides a safe and affordable, real-world test environment for trialling innovative new energy products, services and business models as well as the policies, regulations and standards required for an interoperable home energy market. We selected SysMech and their Zen product as the base for the Digital Integration Platform component of the Living Lab based on their experience of delivering similar complex highly interoperable solutions in other sectors. This has enabled us to very rapidly deploy their solution in the Living Lab which now has over 270 homes enrolled to enable an increasingly diverse range of trials and projects with innovators seeking to understand how their solutions perform in the real-world.”

Illuminating the Way to a Sustainable Future

Considering its tremendous strides towards a cleaner planet, there is little doubt that SysMech is an indispensable boon to the entire world. The next step for SysMech is to upgrade all its products to cloud-native offerings, which will give clients the ability to scale their solutions as per their business needs. Moreover, moving forward, the company will also add new capabilities to the Zen Smart platform and increase the portfolio of benefits it offers. “As foresighted organisations shift towards smart and green energy, we will support them with robust data-based solutions and help them get the most of their investments,” concludes

Ben Caruana

Watson. **ET**

