

Exergy

Engineering

Coventry



Exergy is an engineering company, which was founded in 2011. We develop, engineer and undertake projects that contribute to our goal of a low carbon, sustainable future. We excel at designing and implementing strategies and technologies that optimise the use of resources in industries and buildings. In the last seven years, we have been heavily involved in research and innovation projects in sustainable processes, green building and cities, plus circular economy sectors.

Products and Services

- ◆ Process Development
- ◆ Process Modelling
- ◆ Scale-up & Plant Design
- ◆ Techno-Economic Assessment
- ◆ Sustainable Building Design & Certification
- ◆ Building Information Modelling
- ◆ Renewable Energy Systems
- ◆ Resource Efficiency & Optimisation

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www.exergy-global.com

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Product / Service	Benefit / Unique Selling Point	Web page / YouTube link
Process Development	<p>Our commercial offer and current process development expertise includes, but is not limited, to the following feedstocks, processes, technologies and products:</p> <ul style="list-style-type: none"> • VALORISATION OF FEEDSTOCKS: Municipal solid waste (MSW), wastewater, agricultural waste, food waste, algae, gaseous effluents, pulp and paper, and side streams. • PROCESSES / TECHNOLOGIES: Pre-treatments (e.g. hydrolysis), fermentation, algae cultivation and valorisation, thermochemical conversion (pyrolysis, gasification, incineration), anaerobic digestion, energy and mass optimisation, and downstream processing. • PRODUCTS: Alcohols and acids, building blocks, bioactive compounds, proteins, fertilisers, biopolymers (monomers), biofuels, chemicals. 	Click here
Process Modelling	<p>Process Modelling is the foundational step for further process development, whether it is to demonstrate scalability, repeatability or applicability, or to de-bottleneck, improve and optimise the existing processes. This allows us to predict the behaviour of chemical, physical and other technical processes and unit operations in a simulated environment, providing insight into how a process will behave in reality.</p>	Click here
Scale-up & Plant Design	<p>We provide solutions and guidance through the complex engineering challenges encountered when designing a plant or scaling up a process.</p>	Click here
Techno-Economic Assessment	<p>A techno-economic assessment (TEA) determines the feasibility of a particular process or technology. The result of the evaluation helps determine the next steps of development. For example, whether the process should be progressed to a commercial stage, modified, or researched further. Our team of engineers can evaluate any process at various stages of development.</p>	Click here
Sustainable Building Design & Certification	<p>We deliver robust and future-proof design solutions to maximise the whole life-cycle performance of buildings and minimise the use of and need for critical resources such as energy, water and raw materials.</p>	Click here

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Building Information Modelling	At Exergy, we pride ourselves on improving the speed and efficiency of the construction processes through the use of Building Information Modelling (BIM).	Click here
Renewable Energy Systems	We can help you identify the system that best fits your requirements, ensuring you achieve optimal performance and the expected benefits. From small-scale geothermal installations through to industrial solar farms, and from feasibility studies through to construction-ready designs, we offer our clients comprehensive support, tailored to suit their needs.	Click here
Resource Efficiency & Optimisation	We have developed a proprietary methodology, Galileo's Eye [®] , to analyse the performance of your buildings and processes, providing an optimised strategy to improve their efficiency.	Click here

Opportunities

Exergy is seeking new market opportunities with the following type of organisations:

- ◆ Technology developers
- ◆ Manufacturers
- ◆ Operating plants (from food, pharmaceuticals, chemicals to Oil & Gas)
- ◆ Waste treatment and management companies
- ◆ Research institutes and organisations
- ◆ Industrial R&D departments

Geographical Coverage

Open to enquiries from around the world.

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Engineering that inspires

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