

Carbon Reduction Technology for Business

The Energy & Bioproducts Research Institute (EBRI) at Aston University provides bespoke solutions and innovative technology to organisations seeking ways to reduce the financial and carbon cost of waste, increase income generation and carbon capture, as well as diversify into new low carbon market sectors.

Productive
Use of
Problem
Materials

BUSINESS BENEFIT: Reduce financial and carbon costs of unwanted materials.



Animal manure



Agricultural straw



Organic food waste



Sawdust



Wood prunings



Crop residues

EBRI offers a range of solutions to help companies and other organisations make sustainable use of low value waste or residues:

Advanced Thermal Conversion Technology: Innovative pyrolysis processor developed by EBRI and its industrial partners including FuturEnergy Ltd heats biomass material in an oxygen-free atmosphere producing a range of valuable byproducts: biochar, gas, liquids, heat, cooling, power and electricity.

Deployment planning: Economic assessment to ensure profitability.

Highest value and benefits: Full testing and analysis of material to identify highest value use, maximum carbon reduction and environmental benefits.

Robust carbon analysis: Full carbon life cycle analysis available for the core system.

Tailored assessments for reports and marketing: Bespoke analysis available to support sustainability reporting.

Creation of Low Carbon Energy and Products

BUSINESS BENEFIT: Income generation and carbon reduction.

Flexible outputs to meet business and environmental objectives.

Applied Practical Research: EBRI is working with companies to take research out of the lab into commercialisation at scale for domestic and export markets. Areas of focus include:



Industrial Heat: Close coupled delivery of hot air, oil or steam using proven technologies to reduce energy costs. Replaces gas purchase or biomass boilers with a low carbon option.



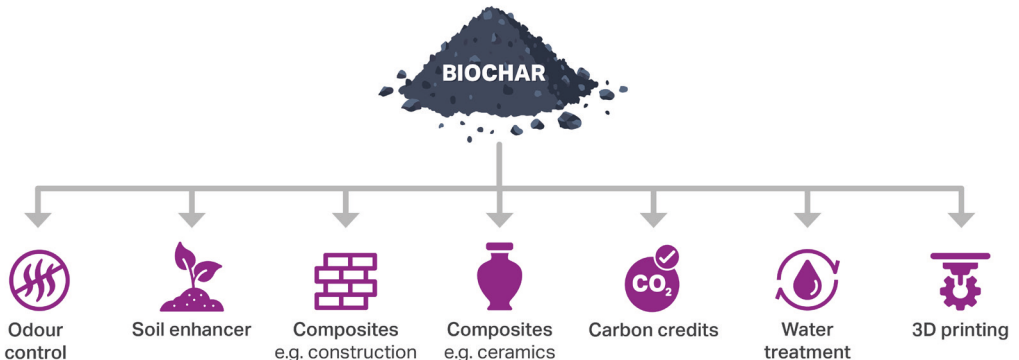
Electricity Generation: Use of established steam turbine and generator equipment for low carbon energy.



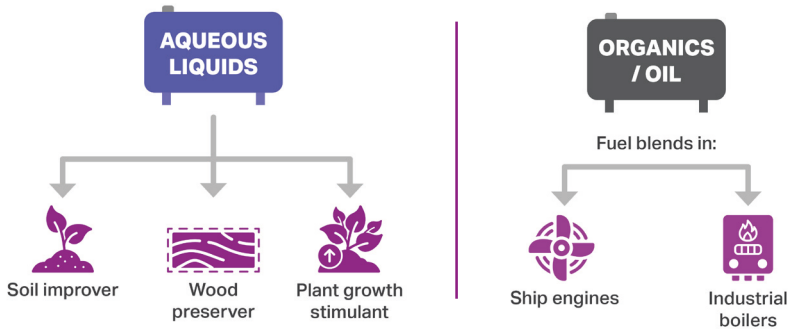
Cooling: Delivery of cooling to buildings requiring low temperatures for manufacturing, storage and environmental purposes.



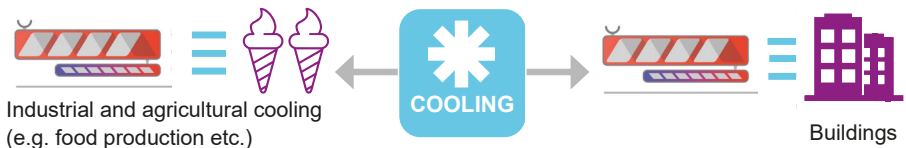
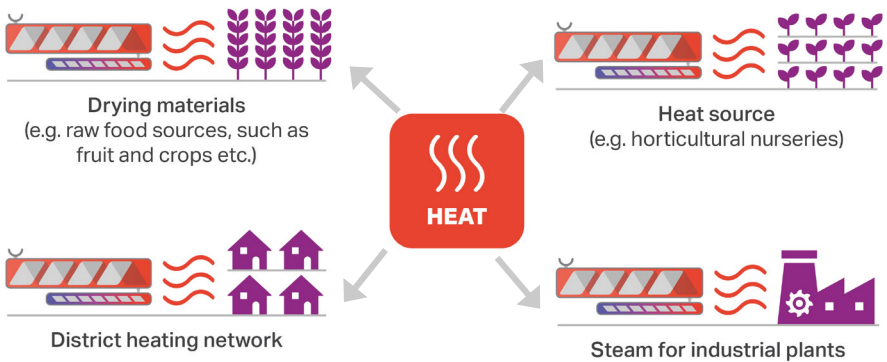
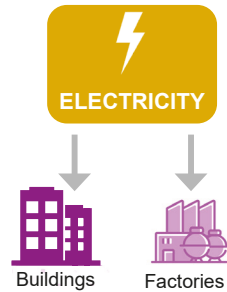
Solid Char for high value applications and carbon sequestration: Conditions soils, promotes plant growth. Eligible for carbon credits.



Liquid Products and their Uses



Energy Products



Other Business Benefits:

Access to a wide range of technical, logistical and specialist support.



- Webinars, consultations and Q&A with expert team.
- Use of proven materials management technologies.
- Site planning and engineering.
- Transport, logistics and storage.

Delivery Support

Gain access to bespoke advice and opportunities.



- Commercial take off agreements.
- Service based revenue models.
- Carbon credits.
- Co-investment and grants.

Financial Guidance

Gain insights and knowledge of the latest technological advancements and innovations.



EBRI's established links with national and international applied research consortia provide access to the latest low carbon technologies as they are developed and approved for use.

New Low Carbon Applications

To discover more

Contact the EBRI Biochar CleanTech Accelerator team.
Email biochar@aston.ac.uk or call +44 121 204 3383

www.bioenergy-for-business.org



Locally-led Innovation Accelerators delivered in partnership with DSIT, Innovate UK and City Regions