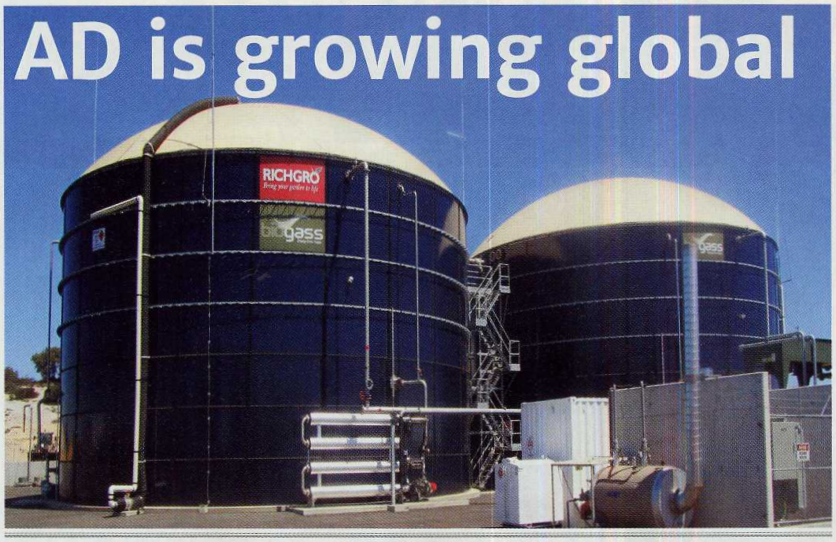
AD is growing global



Hugh Vaughan, director at Landia, says that giving an event true focus has certainly paid off for the Anaerobic Digestion & Bioresources Association (ADBA). He gives an example of how this year's UK AD & Biogas show is building on the international success the industry event has enjoyed so far...

Since its inaugural exhibition in 2010, UK AD & Biogas has gone from strength to strength, showcasing the best AD technology for sewage treatment, food waste, farm and small-scale plants as well as community and micro-scale AD plants, alongside innovations in gas upgrading and biomethane vehicle technology.

This year, the show is expanding further, covering not just opportunities in the UK AD market, but also internationally as the global AD industry takes off.

From day one as founder members of ADBA, digester mixer manufacturer Landia has seen first-hand just how much UK AD & Biogas has developed – and with it, how it too has begun to make its mark on the international market.

Landia director, Hugh Vaughan, who was on the original board of directors at ADBA, commented: "For anyone involved in AD/biogas, this is the show to get excited about. Each year it has been bigger and better. We are still very active with UK projects, but with fellow ADBA members we have made some serious inroads into the international AD market."

For example, earlier this year, Vaughan was in Jandakot, near Perth, with ADBA Member's Edina (gas generators) and Kirk Group company Biodome Asia (tanks/storage) for the official opening of Richgro's new £3.5M anaerobic digestion plant – said to be the first plant of its kind in Australia.

Landia and Biodome Asia have worked together on AD projects in Malaysia, but when Richgro's managing director Geoff Richards visited UK AD & Biogas, a new challenge presented itself.

Richards wanted to steer well clear of so called 'black box package solutions' because he said he needed to know what would be going on inside his AD plant – understand it and be able to operate it in his distant part of the world. He couldn't risk putting the company in a situation where there could be a lack of spare parts and back-up.

Vaughan said: "I thought it was quite novel to have somebody all the way from Australia visit our stand in Birmingham – and I could see straight away that this was a special opportunity for us and our fellow ADBA members to help make this project happen by working together. It shows what a high calibre of visitor that UK AD & Biogas attracts and how UK-engineered solutions and the reputation of ADBA carry so much weight in an increasing number of countries worldwide."

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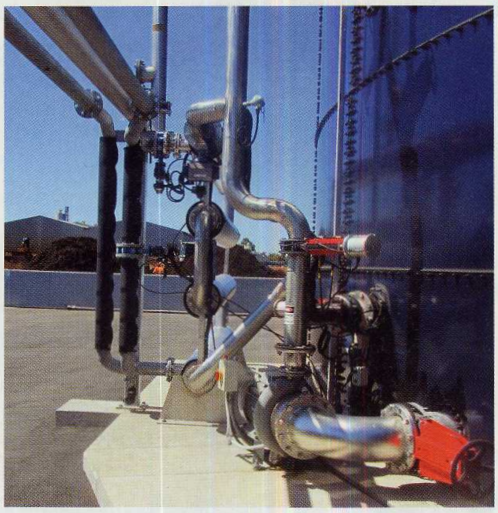
Being able to access the Landia GasMix system so easily and safely from outside the digesters was a major benefit for Richgro



Operational now since January, Richgro has begun generating income from the gate fee for diverting waste from landfill, as well as from the digestate as a biofertiliser by-product.

Around 100 tonnes of food and liquid waste (approximately 35% dry solids) is trucked in each day to the Jandakot plant from supermarkets, abattoirs, fast food chains, breweries and soft drink manufacturers. The facility also has a de-packaging system to remove contaminants in order to enhance the digestion process with a pumpable feedstock. Where possible, leftover packaging is sent for recycling.

Organic matter is fed into two 2,500 cubic meter capacity AD tanks made from glass-fused steel panels by Biodome Asia, which helped reduce on-site civil works.

Slurry is then passed into the primary digester which has its own external heating and externally-mounted Landia GasMix system, using the co-generated surplus heat to maintain a temperature of around 36°C. Easy and safe access to the Landia system from outside the digesters was a big part of the purchasing decision.

Energy is now being harnessed by Richgro's operations to power all of the site's equipment, with the surplus exported into the Western Australian electricity grid. Excess heat is channelled into the site's greenhouses, where a new revenue stream of blueberry growing has developed for the business.

Over a 20-year lifespan, the plant is also expected to save 142,722 tonnes of carbon dioxide emissions, as well as having eliminated its £200,00pa electricity costs.

Less than two months since commissioning, the Richgro facility's processing of mixed commercial and industrial food waste was giving a biogas yield of 138m³/ton. The process capture efficiency was recorded at 91%, with one ton of food waste generating 415kWe and 435kWth from the single onsite CHP, which is running at 100%, producing up to 1.2MW.

Vaughan said: "Landia, Biodome Asia, Edina and also Uniflare (flare stacks) have proved just what can be achieved with our technical skills, knowledge and enthusiasm to bring about such a shining example of an AD plant."

Landia
www.landia.co.uk