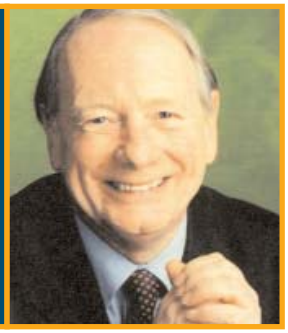
Article which appeared in Sir Jonathon Porritt's magazine 'Green Futures'

Roger Cowe meets **Christopher Maltin**
– the methane missionary of Organic Power

The renewable gasman



Christopher Maltin was an eco-entrepreneur before most people even knew what 'eco' meant. Now, at 59, he is completely dedicated to converting us all to methane – made from organic waste and used as fuel. "I'll never retire – not until the world is running on renewable gas," he says.

His company, Organic Power, has a mission statement to match that level of ambition. It aims to "contribute more to the reduction in environmental pollution and to the mitigation of climate change from greenhouse gases than any other organisation in the world".

"We specialise in totally natural processes to produce renewable natural gas from just about any organic material," Maltin says. "We feel very strongly that this is *the* way. This is the cleanest fuel by miles. You could run all London's buses and taxis on London's waste and dramatically improve the air quality at the same time."

It was back in the 1960s that Maltin first got engaged with fighting pollution. Alarmed at research into the impacts of lead on children, he began adapting engines for lead-free fuel. Cutting emissions from high-performance engines became a continuing theme of his work – but it was the 'oil shock' of the early 1970s that sparked his interest in producing fuel locally, rather than pumping it out of the ground in the Middle East. After selling an upmarket car franchise in 1980, he researched and developed a process for using organic waste to produce methane as a clean energy source for vehicle or other fuel.

Methane became his passion. As he points out, it's a greenhouse gas with 21 times more impact than carbon dioxide if it is emitted to the atmosphere. Divert those emissions, by using the methane instead of fossil fuel to power a vehicle, and you are saving 21 times as much as the carbon dioxide you're replacing.

It's the kind of equation that appeals to the engineer in Maltin. He's no longer satisfied with just reducing emissions. "Being less bad isn't good enough. I don't believe in sustainable any more; we have to do better than that. A wind turbine on a hill somewhere might save 2,000 tonnes of CO_2 a year. If you take the food waste from all the people and animals that can see that turbine and use this as vehicle fuel, you can save two million tonnes a year of CO_2."

Of course there's nothing new in capturing methane from rotting waste, but doing it efficiently and at scale is a different matter. And the secret, now patented all over the world, is in the shape of the tanks used to convert what has been waste material into raw material. As Maltin explained recently to the World Renewable Energy Conference in Denver, conventional round tanks don't work well enough. He has developed what can only be described as bum-shaped tanks (hold a piece of card flat, then turn the ends under so they tilt up and meet, creating a double-tube with the lower half joined in the middle). Liquid waste is fed into the centre of one of the half-tubes, and they are heated from beneath the join. This results in thorough mixing of the contents, completely degrades the organic matter to produce clean fertiliser, and maximises methane production.

"It's a very simple way of taking organic waste and making something really valuable," Maltin says. "We use any kind of organic waste – animal slurry, chocolate waste, lactose from cheese making are just a few examples." Nor is vehicle fuel the only route for the resulting gas. Organic Power is already working in Malaysia to supply the Petronas gas grid, using palm oil waste as its organic material.

Based at Horsington in Somerset's Blackmore Vale, Organic Power employs 27 people itself, and aims to expand the use of the Maltin System by appointing licensees and helping them build their first plants. Maltin would welcome more private investors, but when it comes to government help he's scathing about bureaucratic obstacles and lack of understanding .....

Roger Cowe is a freelance writer specialising in sustainable and responsible business and social enterprise.

www.organic-power.co.uk