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The great green guzzler con: Monster digesters are meant to guzzle up waste and churn out eco-friendly energy... but they are fed with CROPS, produce pitiful levels of power, cost YOU £216m in subsidies and HARM the environment

- Anaerobic digesters are industrial machines that turn crops into heat for homes
- Process transforms waste into methane, which is fed into the national gas grid
- But when process has a fault, spillages can cause mass destruction to farmland
- Spillage in Sussex led to 70 acres being contaminated and over 50 sheep dying
- Experts say toxic spills are growing with 12 'serious pollution incidents' in 2015

By David Rose for The Mail on Sunday

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Shortly before midday on March 16, 2016, Richard Whittemore opened the gate of a 20-acre field near Plaistow in West Sussex to find a scene of devastation.

The babbling stream that flows through it had become a glutinous slick of black, toxic sludge.

He knew exactly what it was. The same thing had happened nine months earlier: a massive chemical spillage from the huge 'green' energy plant at the neighbouring Crouchland Farm, subsidised each year with millions of pounds from taxpayers. In all, the spill, rich in poisonous ammonia, contaminated 70 of Mr Whittemore's acres.

In the following days, 28 of his pregnant ewes perished, along with 35 lambs and the fish and other wildlife in the stream for a distance of several miles. **The Environment Agency warned that children and animals should stay well away from the polluted water.**

'Part of my reason for farming is to enjoy the countryside, and to work with animals,' Mr Whittemore said yesterday. 'To have



this happen twice in a year was shattering. I felt like giving up.'

The toxic spill came from an anaerobic digester (AD), one of a fast-growing fleet of industrial machines that turn food and agricultural waste into methane, which is then fed into the national gas grid. Their supporters claim they are a cost-effective and environmentally-friendly way of producing

gas to heat homes while curbing greenhouse gas emissions. According to the Anaerobic Digester and Bioresources Association (ADBA), the industry's lobby group, they will lead to 'stable energy prices, fewer carbon dioxide emissions, and a financial saving for homes and businesses across the country'. **But the reality is this supposedly green energy source comes at a heavy cost to taxpayers and to the environment it is supposed to protect.** An investigation by this newspaper has revealed that:

- **There is a massive shortage of food and farm waste, which ADs were originally supposed to use as 'feedstock'.** They rely increasingly on specially-grown crops from prime arable land, such as maize and sugarbeet.
- New Government figures show that in June 2016, a staggering 131,000 acres of UK land were being used to grow maize for ADs – an increase of 50 per cent in one year. Environmental experts say maize is extremely destructive, permanently damaging soil.
- **Toxic spills from ADs are common and fast increasing. According to the Environment Agency, ADs caused 12 'serious pollution incidents' in 2015 – a rise of more than 50 per cent on the previous year.**
- ADs don't just leak, they sometimes explode. In 2014, an AD blast at Harper Adams University in Shropshire destroyed a huge containment tank and the building housing it, showering the surrounding land with tons of toxic slurry.
- **ADs making gas for the grid suck up £216 million a year in taxpayer-funded subsidies, making their gas more than three times as expensive as that from conventional sources – money that could be spent on the NHS or schools.**
- The Plaistow AD has been operating without planning permission since 2013 and faces a planning demolition order – yet in that time has received some £5 million in subsidy.
- A Government 'Impact Assessment' warned last March that 'agricultural crops are ... not a cost effective means of biomethane production'. Crop-fed ADs might reduce emissions – **but only at a cost many times higher than that of burning equal quantities of fossil fuel.**
- Ecotricity, owned by green multi-millionaire Dale Vince, says it wants to increase the number of ADs producing gas for the grid tenfold, by building 1,000 new plants. Construction of the first, at Sparsholt in Hampshire, is imminent.

The burgeoning AD gas industry is a relatively late addition to the 'green' energy scene. The first, small-scale plants, fed mainly by farm waste, did not 'inject' gas into the grid but burnt it to generate small amounts of electricity. About 400 of such plants have been built. However, in 2011, the Coalition government introduced the Renewable Heat Incentive – **a subsidy that made it profitable to build much bigger ADs to make gas for the grid, despite their enormous running costs.**

The first gas-to-grid plant came on-stream that year. They rapidly took off. In December 2015, there

were 70 gas-to-grid ADs, and now there are 86, prompting ADBA chief executive Charlotte Morton to comment: 'Green gas has gone mainstream... Biomethane-to-grid is a real success story for the Renewable Heat Incentive.' According to Ms Morton, AD gas heats 170,000 homes. Others have long been more critical. Before his untimely death in 2016, the chief scientific adviser to the Department of Energy and Climate Change, Professor David MacKay, warned: **'Biofuels can't add up.'**

Farming and processing their feedstock took up so much energy that it almost cancelled out the energy they might produce, so that overall, 'biofuels made from plants deliver so little power I think they are scarcely worth talking about'.

The AD planned for the Agricultural College in Sparsholt illustrates what he meant. According to Ecotricity, the gas it makes will have an energy output of 49,000 megawatts per year – enough to heat 4,000 homes.

But this, according to the firm's calculations, will require 60,000 metric tonnes of feedstock from grass and rye to be grown on 3,000 acres of farmland and transported to the site. The AD will occupy 13 acres – **an industrial site in the middle of exquisite countryside**, the size of seven football pitches. Growing and harvesting the feedstock, and shipping it to the plant, **will consume vast quantities of fossil fuel, mainly diesel.**



As well as gas, ADs produce 'digestate', which weighs 85 per cent as much as the original feedstock. (Diluted, this can be used as a fertiliser.) To keep the Sparsholt AD operating, every year loads totalling 60,000 tons must be shipped in, and 50,400 tons shipped out.

According to Sparsholt campaigner Stewart Wooles, the 110,400-ton total is the same weight as two ships as big as the Titanic – 'all being driven through the lanes of Hampshire every year'.

In its planning application – fiercely resisted by residents – Ecotricity admitted that the AD would trigger 12,792 separate vehicle movements a year, mainly tractors pulling trailers, **on the narrow local roads – a recipe for traffic chaos.**

Mr Wooles said: **'Ecotricity claims it can get all its feedstock from a 15km (nine mile) radius. I very much doubt that, because they do not yet have a single contract with local farmers for supplying it, and another nearby AD is having to source its feedstock from many times that distance.**

'But even taking them at their word, transporting loads to and from the AD will consume 220,000 litres of diesel a year. **That much in a family car would get you the distance to the moon and back five times.'**

Yet still the plant is officially classed as 'green'. John Constable, director of the Renewable Energy Foundation, said that provided it is 'registered' by April, Ecotricity can expect to receive £2.43 million a year from taxpayers, on top of about £1 million from selling its gas to the grid. **The subsidies mean AD gas costs about three-and-half times as much as that from fossil sources.**



Ecotricity and Sparsholt College declined to comment to the MoS, claiming all these issues had been dealt with by the planning process. **Critics say ADs cause problems other than traffic.** According to the Campaign for the Protection of Rural England (CPRE), they can provide some local employment, but overall do damage to the local economy: 'Pubs, hotels, stables, shoots,

B&Bs, campsites, wedding venues and **any parts of the tourism sector are adversely affected by the smell, the unsightliness and the traffic of a large-scale AD.'**

A CPRE report on crop-fed digesters in the West Country added: **'The countryside around the digesters is becoming an extension of the industrial nature of the AD sites themselves to the detriment of public amenity, the environment and the long-term welfare of the soil.'**

In 2016, the Soil Association told the parliamentary Environmental Audit Committee that the area of land being diverted into growing AD feedstock would be enough to produce two billion loaves of wholemeal bread. Growing maize, it added, was 'subsidised soil destruction'.

In December, the new department for Business, Energy and Industrial Strategy (BEIS) announced that from April the subsidy per unit of gas would increase. But henceforth, it added, it would only be payable on half a new AD's output if all its feedstock came from crops. The new policy may jeopardise Mr Vince's plans to build 1,000 new ADs, although ADs that register before it comes into force will not be affected. Here again, Ecotricity declined to comment – although it continues to trumpet its 'green gas' campaign on its website.

Elsewhere, those who live near existing plants must continue to grapple with their consequences. Richard Whittemore farms rare breeds of grass-fed mountain sheep and Highland cattle. On the day of the March 2016 toxic spillage, caused by a flood of liquid digestate from one of the AD's several open lagoons, he had 500 ewes due to give birth in a fortnight, and had been relying on the field's lush grazing to feed them.

He was forced to sell almost 400 at knockdown, 'fire sale' prices, along with several bull calves. In all, the leak cost him £54,000 – for which he has not been compensated. The earlier leak in June 2015 also forced him to sell 400 animals and the cost was even higher, about £60,000.

Yet the Plaistow AD, run by Crouchland Biogas, has been refused planning permission and is currently subject to an order to demolish it – a decision the firm intends to appeal against in April. It is also covered by a separate order saying it must not truck in feedstock maize – which it still continues to do, in loads that sometimes total hundreds of tonnes per day.

Astonishingly, neither this nor the spillages have affected its subsidy. According to a BEIS official, the subsidies were still being paid 'because biomethane is being produced'.

The fact that the plant did not have planning permission was a matter for the local authority.

Crouchland's spokesman insisted the plant was 'lawful', saying its planning status would finally be determined at a public inquiry in April. He claimed it was opposed only by a 'handful of our neighbours who continue to campaign against our farm'. In fact, the planning inspector has so far received 450 individual submissions opposing the plant and a 1,050-signature petition – and just five letters supporting it.

A small selection of comments:

[TheSidelines](#), Cynic, United Kingdom

Biogas from anaerobic digestion seems like a brilliant idea in practice however It is a gravy train for unscrupulous people and investors such as at Crouchland Biogas. At least 500 hectares of land is needed for every 1 megawatt of biogas plant capacity specifically to grow 20000-25000 tonnes of quality maize needed to chuck in the anaerobic digester (none of it is feedstock for livestock). Crouchland is at least a 2MW biogas plant. Work out how much diesel is being used to tractor / HGV in the feedstock to the digester. No thought for the many many homes in the hamlet of Ifold that have that traffic thundering past every day. Or the locals that have to battle that traffic when driving. Then we learn that Crouchland directors and shareholders sit back and rake in money just by getting a government subsidy. They never even have to run the plant properly, Crouchland have proven that many times. It is a total con.

[penny](#), Hampshire

Since our local one opened, the fields have become factories, harvested by huge machines, much bigger than the ones used for the food crops. The local roads have an endless stream of huge lorries and tractors feeding the thing, leaving mud all over the road, and destroying the surfaces of the small lanes which are not up to the weight. There is no 'waste' being recycled; it's all grown specially on good farm land, and the soil is suffering because of it.

[Sidelines2017](#), UK, United Kingdom

In 2015 Amber Rudd stated - subsidy should be temporary, not part of a permanent business model. Yet in July 2016 Ofgem confirmed Crouchland Biogas has received over 4 million pounds in RHI subsidy. Even though Crouchland did not have planning permission or relevant environment agency permits. To this day they conduct unlawful activities. Yet Crouchland still rake in cash at taxpayers expense and to the detriment of communities, wildlife and the environment where they conduct their green energy con. UK households already pay over the odds for energy as a result of the vast amount of government subsidies handed out.

[little kingfisher](#), Billingshurst, United Kingdom

At last, a sensible article in the national press this time, exposing the fact that there is nothing 'green' about the biogas industry. It has come so far away from the original, sensible, concept - a way of converting on-farm waste to energy for the farm's own use (as was the case at Crouchlands Farm). Once you get greedy 'entrepreneurs' taking advantage of government idiocy and stupid planning laws all you end up with is the taxpayer lining the likes of Dale Vince's pockets. When will they ever learn??????

[Bob of Bonsall](#), Matlock, United Kingdom

They wanted to build one of those at Dunsley Mill, between where I live and Cromford, a few years back. Only local opposition stopped it.

[rocketman6132](#), London, United Kingdom

I live down stream to the Crouchlands plant; In 2009 they started spraying 'liquid digestate' onto their land which drained into three streams, one of which flowed through our pond. Killed all the fish, water birds and insect life, but made the weed growth explode in life. After 3 years of complaints to the Environment Agency, Crouchlands were eventually stopped from spraying LD onto their fields as the land had reached toxic P and N levels. Now Crouchlands truck it out (see photo of HGV in country lanes). I have had my pond dredged at £7,000 of my own money, and it needs doing again because of the weed and subsequent silting. There is no silver bullet for being 'green'. Just someone else gets to pay the bill. It also reveals a shocking lack of speed and authority by the council. If Crouchlands are stopped, guess who will pay for the cleanup?!

Read more: <http://www.dailymail.co.uk/news/article-4078820/The-great-green-guzzler-Monster-digesters-meant-guzzle-waste-churn-eco-friendly-energy-fed-CROPS-produce-pitiful-levels-power-cost-216m-subsidies-HARM-environment.html#ixzz4UWfh49On>
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