

Biofuel bliss

Unlike Victor Kiam, who famously purchased Remington because he loved the razor firm so much, for Bill Courtney-Smith it was a case of been there, felt the pain – and then he bought the company. Keith Read tells the Regenattec story

It was back in 2005 when Regenattec approached Bill Courtney-Smith, offering to supply biofuel and the associated kits that would allow his Courtney Coaches fleet to run on cheaper, greener fuel. Jackie Fitchett, for years operations manager at Courtney Coaches and now in the same role for Regenattec, recalls those early days. “Regenattec asked if we would undertake trials on one of our vehicles. Over the following couple of years, the trials proved fruitful, although I did tell Bill he was mad to agree!”

Fortunately, Fitchett was proved wrong and, as the relationship with Regenattec progressed, more coaches were converted. “Initially, we were using waste oil from Walkers Crisps and that, against the price of diesel, was extremely attractive,” she explains. “It meant a very quick payback time for the cost of the conversion; we were saving about 20p a litre. Unfortunately, that benefit didn’t last long. Using the [waste] oil meant we got less bus operators’ rebate, so we were gaining with one hand and losing with the other.”

Fitchett says the situation was soon made worse, as the cost of the conversion kits started fluctuating between £2,500 and £3,000 per vehicle, because many of the components came from around Europe. “It seemed as if suppliers priced the bits according to which side they’d got out of bed,” she jokes. And later there were more problems, as Courtney Coaches found issues with the quality of the oil and its supply, and Regenattec looked set for failure.

“Bill’s investment was huge and he couldn’t just walk away from it,” states Fitchett. “So, with a partner, he purchased Regenattec. Bill had 49% of the company, which was relocated from Milton Park in Abingdon to our base in Bracknell. Bill had been in semi-retirement, but returned to full-time work, in order to help look after the company.” Then, in July this year, Courtney-Smith’s partner resigned and he bought the remaining shares.

Components to produce conversion kits and spare parts are now kept at Bracknell, where the

coach engineers are trained in fitting the equipment. However, fuel production and supply is now in the hands of Biomotive Fuels, following further investment by Courtney-Smith in this biofuel business.

“Jim Ebner, from Biomotive, approached us at around the same time as the Regenattec purchase was going through,” recounts Fitchett. “He wanted to sell us biodiesel, but we didn’t want to use it, because we believe there are inherent problems.” She shares the view of many individuals in the transport sector that biodiesel can cause major



“We see it as helping to reduce operators’ carbon footprints. Because we’re in this recession, people – and companies – are very keen on what we’re doing. But they’re also very keen on not wanting to spend any money. If companies had more cash flow, or if there were incentives from the government available, then they’d want to do ten. But they tell us that they can only afford to do one.”

damage to pipes and have a detrimental effect on performance.

“We wanted to use biofuel, which is not so harsh, and, according to the government’s carbon intensity calculator, gives a carbon reduction of up to 95%, depending upon how far it is delivered,” states Fitchett. “So Bill and Jim became partners in Biomotive to complete the biofuel chain. Courtney Coaches has tried and tested it, and been through the conversion process; Regenattec supplies the conversion, and fits and maintains it; and Biomotive provides a consistent supply of good quality biofuel.”

Biofuel benefits

Ebner says biodiesel has its place but contends that it is not his market. “It’s used by oil companies to blend at 5% and, sometimes, up to 7%. Generally, vehicle manufacturers’ warranties stop there,” he observes. “Because we’re looking at high-end usage, we’re interested in 100% biofuel to get the maximum carbon saving. You can’t do that with biodiesel, without having problems. Our biofuel is pure oil, not transesterified oil [that has been chemically converted into biodiesel]. That’s where the fundamental difference is.”

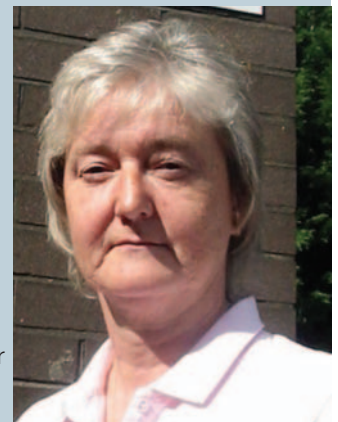
And to further distance Regenattec’s conversion from products that might have caused issues in

On the road

Forget anything that’s been said about biofuel vehicle exhausts smelling like fish and chip shops. Palm oil – preferred by most fish fryers – is not good for biofuel and is avoided by reputable UCO (used cooking oil) collectors. This is one of the facts about biofuel that Jackie Fitchett (pictured) loves to recite. But when it comes to illustrating that there’s no loss of power (or mpg for that matter) with biofuel, she invites you to hop on board.

There is no perceptible loss of performance when she switches the coach to biofuel, having started from cold on diesel. And if she had attempted to switch over too early, the system is intelligent enough to wait until the appropriate engine temperature is reached before drawing biofuel. When she changes between fuels while on the move, you cannot detect the point at which she has flicked the switch on the control panel.

Twin tanks are fitted to converted vehicles, with the original fuel tank usually becoming the biofuel tank. A supplementary tank is added for the diesel supply. When stopping at the end of the day, the only requirement is to switch from biofuel back to diesel to allow the system to flush itself, ready for the next morning start-up.



the past, he points out that it comes with full AA warranty. “This underwrites the use of our biofuel and provides peace of mind to any operator considering using the system,” says Ebner.

Biofuel can be made from pure plant oil, but used cooking oil (UCO) offers the maximum carbon saving – which is why Regenattec markets UCO-based products to hauliers and PSV operators. However, as Fitchett explains, ideal customers are those that produce major quantities of UCO and run a fleet of trucks. “We would take their waste oil, refine it and ship it back to them as fuel. They’d make a greater saving, because we would not have to purchase the oil – it’s theirs anyway. We’d only charge for the refining and transportation.”

Industry response

It’s a win-win. Exact savings depend on several factors, but estimates of up to 10p per litre seem realistic. And, interestingly, little or no volume of UCO is lost during refining. In fact, marginally more is returned, because of the added fuel enhancers.

The latest news is that Regenattec started talking to United Biscuits late last year. The company perfectly fits the bill to benefit from biofuel conversion. Its waste oil was analysed and found suitable for refining ahead of trials of the conversion kits, so evaluation of performance has

Government intervention

Bus and coach builders, such as Optare, are fitting Regenattec kits to new buses, ahead of delivery to Courtney Coaches and to other PSV operators.

The conversion is particularly attractive, since the bus service operators' grant (BSOG) is currently better for those using biofuel. This hasn't always been the case and the future might be uncertain. When Bill Courtney-Smith was using soya to produce fuel, he was getting a rebate of 33p off the duty on his fuel, while those using diesel were getting 43p. "I was being victimised for being green," he rails.

That, he says, was sorted out by Tony Blair, after one of his three visits to Courtney Coaches. More recently, the government ordered that, for the next three years, 100% of the duty would be rebated. "This swung it completely the other way," comments Courtney-Smith. "We were getting back 14p a litre more than people running diesel."

But governments and policies change and the rebate is now only guaranteed until this month. However, Courtney-Smith believes that the resulting uncertainty won't affect hauliers and he is optimistic that they – and food processors such as the firm trialling his conversion kits and biofuel – will want to benefit from biofuel.



commenced on two trucks. More deals with companies processing food could follow. Courtney-Smith and Ebner are optimistic that, if the trials go well, more companies will be keen to take advantage.

United Biscuits uses about 1,000,000 litres of diesel a year for its fleet of trucks and produces around 600,000 litres of UCO. Even using the lowest estimated saving, the company stands to reduce its annual fuel bill by around £200,000, with pay back for the conversion coming after 100,000 miles for an 8mpg truck.

Following the announcement of this deal, it's likely more operators looking for financial savings and carbon footprint reduction will also end up at Regenattec's doors. After all, for those turning waste into biofuel, their fuel costs will also be largely insulated from any rise in the cost of UCO.

And fluctuations are a reality, explains Courtney-Smith: "When people like me first started using soya [to produce fuel], it was 27p a litre cheaper than diesel. Now it's about 25p a litre more expensive than diesel. That is one of the reasons we went across to UCO. Some who want the credentials of using 95% [green] fuels will pay the extra cost, but you can't build a business on that."

For those considering conversion to UCO-based biofuel, the message is that, as with most commodities, the cost of waste oil is market driven. "We buy in bulk from the collectors and UCO does tend to mirror forecourt prices. When they go up, the waste collectors try to get more per litre," comments Ebner. And Courtney-Smith adds: "Government scientists say that the carbon footprint on pure, standard, soya is about 47%. So you get a double-whammy with UCO, because, as the second user, you're getting in excess of 90% carbon footprint reduction."

Reflecting on his journey with alternative fuels, Courtney-Smith says it's too easy for people to lose sight of what he and Regenattec are trying to do. "We see it as helping to reduce operators' carbon footprints. Because we're in this recession, people – and companies – are very keen on what we're doing. But they're also very keen on not wanting to spend any money. If companies had more cash, or if there were government incentives available, then they'd want to do ten. But they tell us that they can only afford to do one."

Courtney-Smith also reveals that he has been through the process of blending and seen its shortcomings first-hand. "We also saw you can get several different grades of biodiesel; there is an EN standard, but not everyone makes biodiesel to that standard. With our fuel, there is a standard that is registered. And we test every single batch produced," he confirms. "We are tarnished by the boys who are on biodiesel. People say we're the same thing, but we clearly are not!"