CASE STUDY BIODIESEL

James Blond Ltd – seeing a competitive edge

An Auckland vehicle hire firm saw a business advantage in switching to biodiesel, believing it would boost its overall appeal and attract customers keen to do their bit for the environment.

About James Blond Ltd

When John Pedersen established James Blond Ltd in 2004 (giving it his fair-haired son's nickname), the vehicle rental firm was a sideline to his adjacent car sales yard. But business boomed and in 2008 the vehicle rental firm moved to a large, stand-alone site on Auckland's Great North Road to accommodate its growing fleet – currently some 190 vehicles. Around 50 of those are diesel-fuelled commercial vehicles, mainly self-drive trucks and vans (typically used by people moving house) and 10- and 12-seater minibuses. The cross section of vehicles ranges from a four-tonne truck to small commercial vans, and includes Toyota Hiace, Toyota Dyna, Ford Transit, Mitsubishi Canter, Isuzu Elf, Nissan Atlas, and Nissan Caravan.

Seeing green

Environ Fuels approached James Blond Ltd in 2009, suggesting the firm add biodiesel to its business mix, and put its diesel vehicles on a biodiesel blend. The idea appealed, both as a business improvement measure to enhance the company's overall appeal to customers, and with a view to long-term growth. John Pedersen believes consumers will increasingly make eco-friendly choices given growing awareness of 'green' issues such as climate change.

Confidence leads to a quick start

From what he had already learned about biodiesel, John felt sufficiently assured about its suitability and supply that he decided to simply make the transition. The firm chose not to run a pilot nor liaise with the fleet's engine manufacturers; most of the fleet was no longer under warranty, so retaining warranty status was not a consideration.

Following discussions with supplier Environ Fuels, a 1,000 litre fuel storage tank was installed at the James Blond site (at no cost to the rental company) and the commercial fleet switched fuels in September 2009, using a blend of 20% biodiesel with ordinary diesel (B20).

No modifications to the engines or fuel systems were required, other than having to change the fuel filter at each vehicle's next service – standard practice when switching over to biodiesel.

The transition went without a hitch, the trucks and vans running as well as ever and remaining breakdown-free. Niggling concerns that the vehicles might require extra servicing work after changing to biodiesel proved unfounded. Servicing costs have been no higher than with ordinary diesel, and likewise, fuel costs are unchanged.

Being a rental firm, the customers often have to refuel the vehicles themselves, when hiring over longer periods or driving long distances. Because biodiesel blends are interchangeable with diesel, the customer can simply refill the vehicle on ordinary diesel at any gas station, and it can safely resume on biodiesel refills when returned to the depot.

The idea appealed, both as a business improvement measure to enhance the company's overall appeal to customers, and with a view to long-term growth.



Key features

- · Wide range of vehicles running on B20
- · Fuel storage tank installed on-site
- Fuel and maintenance costs remain the same
- Extra fuel filter changes required initially after switching to biodiesel

Key benefits

- · Increased vehicle power
- · On-site tank makes refilling easier
- Reduced greenhouse gas emissions provide a marketing angle
- · Positive customer feedback



- · Tourism industry
- · Rental hire industry
- · Commercial fleets



Technology overview

- Virtually all diesel vehicles can use a 5% biodiesel blend (B5) without any engine or fuel system modifications. Higher blends, such as B20, are able to be used for many large commercial vehicles such as trucks and buses, provided a few simple checks and steps are followed. Some engine manufacturers also approve the use of up to 100% biodiesel. EECA recommends that businesses check with their vehicle or engine manufacturer, and with a specialist with particular expertise in the field, about the level of blend that's suitable for their vehicle or vessel.
- In New Zealand, B5 is the maximum allowed for retail sale. Higher blends such as B20 can be sold directly to commercial users where there is a written contract for supply.
- All biodiesel blends for sale in New Zealand must meet fuel specifications set by the government.
- · Biodiesel blends tend to 'clean' fuel systems, loosening dirt and old fuel deposits and carrying them through to the fuel filter. As a result, it is common practice to change the fuel filter soon after switching to biodiesel, where there is risk of filter blockage.
- · Biodiesel is more lubricating, cleaner burning and more biodegradable than ordinary diesel.
- Vehicles can switch from biodiesel blends to ordinary diesel and have a mix of both fuels in the tank at the same time.
- Greenhouse gas reduction of 15-18% (based on use of B20).

Fuel for thought

The firm's use of a more environmentally friendly fuel attracts positive feedback from many customers - with at least a handful choosing to hire from James Blond Ltd specifically because of its biofueled vehicles. The firm prominently promotes its use of biodiesel, both on its website, and on its building frontage.

The fleet is running well on biodiesel, with no mechanical problems or breakdowns. Some customers feel that the vehicles run more smoothly and have slightly more power. Biodiesel is cleaner burning and more lubricating than ordinary diesel, so John anticipates that these engine-friendly benefits will ultimately be realised in the form of less engine wear and thereby lower maintenance costs, as the vehicles clock up mileage.

In addition, the ability for the firm to manage the vehicles' refills directly, through now having an on-site fuel supply, has led to a sharp decline in the number of disputes about vehicle fuel levels.

Future plans

James Blond Ltd's vehicles are remaining on B20 for the time being, as biodiesel blends' 'mix and match' ability with ordinary diesel does not extend to pure biodiesel (B100). Vehicles run on B100 would need to be able to be refilled by the customer - and B100 is not currently available at gas stations. John is however considering buying a B100-fuelled commercial vehicle, for short-term, local hire only, so it can be refuelled from the rental depot.

Key personnel

John Pedersen (Managing Director, James Blond Rentals) john@jamesblond.co.nz

MARCH 2010/EEC1348



James Blond Ltd's perspective

John Pedersen, Managing Director:

- "Biodiesel seemed like a good fit for our business. It's a long-term thing for us - interest in biofuels will keep picking up as time goes by. And we are located close to Titirangi, a part of Auckland that has a strong interest in 'green' issues.
- "When we switched the fleet over to biodiesel we did it pretty quickly. But I had a lot of knowledge about biodiesel. I knew it was a well-established technology used internationally, and I figured, if for some reason it all turned to custard, I could pull the plug on it very quickly.
- "The whole transition was smooth. I was really surprised at how easy it was, and at how little difference it's made to the trucks. They're running nicely on it - and some customers have also said that the vehicles actually seem to have a bit more power [than with ordinary diesel].
- "With biodiesel on site, we can control the refills. We've now got the situation where I know that the vehicle's full when the customer takes it out. Incidents of dispute about the amount of fuel that's in the vehicle - those have evaporated. That's a minor bonus, but it has been a worthwhile one."



For more information contact The Energy Efficiency and Conservation Authority:

EECA HEAD OFFICE: PO Box 388, Wellington, (04) 470 2200

EECA AUCKLAND: PO Box 37444, Parnell, Auckland, (09) 377 5328 EECA CHRISTCHURCH: PO Box 13983, Christchurch, (03) 353 9280

Freephone 0800 358 676 | www.eeca.govt.nz/biofuels



