BUS OPERATOR'S FUEL COSTS & SUBSIDIES

1. The significance of fuel costs for a bus operator

The significance of fuel costs for a bus operator can be judged from the following table which gives a breakdown of the costs of running a bus fleet as follows:

Activity	*%tge of total running costs*
Labour	66.9
Bus Maintenance	9.4
Fuel	9.1
Overheads	10.4
Depreciation	4.2
Total	*100.0*

(Source: "Transit")

Thus fuel accounts for over 9% of total running costs and over 27% of all non-labour costs, so that it is a very significant item of expense for any operator. These figures relate to the cost of fuel under the current subsidy regime whereby a bus operator engaged in stage carriage operation is able to reclaim 80% of the duty paid on fuel. In the UK, at the present time, but for a very small number of exceptions, the fuel in question is ULS diesel. As explained further in a paper being produced by Steve Brown and Chris Dewey the current net cost of ULS diesel, on which the above figures are based, is just over 23 pence per litre.

If bus operators had to pay the full cost for their diesel this would be around 60 pence per litre, and the cost of fuel would be an even more significant item for them than it is at present. It is therefore easy to appreciate the operator's apprehension towards any substantial change in Fuel Duty Rebate (now known as Bus Service Operators Grant, BSOG.)

2. Fuel cost savings provided by a low carbon bus in urban operation

In the UK, urban bus fleets are predominantly comprised of a mixture of double deck and midibus vehicles. In London for example there are 6,400 buses of which 2,700 are midibuses, and the balance, but for a few hundred, are largely modern double deck buses. On average each travels approximately 40,000 miles per year with a fuel consumption of 8mpg and 5 mpg respectively for midibus and double deck . Thus the potential fuel savings that could be available using low carbon buses with a 30% reduction in fuel consumption are shown on the next page, as follows:

Conventional Bus	Double Deck	Midibus
Annual fuel cost at 23p per litre	£ 8,320	£ 5,200
Annual fuel cost at 60p per litre	£21,704	£ 13,565
Low Carbon Bus		
Annual fuel cost at 23p per litre	£ 5,824	£ 3,640
Annual fuel cost at 60p per litre	£ 15,193	£ 9,496
Potential Savings per year		
Annual fuel cost at 23p per litre	**£ 2,496**	**£ 1,560**
Annual fuel cost at 60p per litre	**£ 6,547**	**£ 4,069**

3. Likely uptake of low carbon buses and/or alternative fuels

As Steve Brown and Chris Dewey will show in a separate paper, as long as the figures shown in paragraph 2 prevail, it is extremely unlikely that any fuel other than ULS Diesel at its subsidised price of 23 per litre, will be used on its own merits by bus operators. The consequent disadvantages of this are numerous, and the two most significant of them are listed below:

1. As has been pointed out by several authors and agencies in the recent past, buses, because of the combination of relatively low volumes of vehicles (compared to cars, vans and trucks); but intensive use (40,000 miles per year for 15 years) form a useful, practical, testing ground for new technologies. It would be very unfortunate if the use of alternative fuels, particularly ones that offer significant CO2 emission advantages, were precluded from such testing.

2. As long as subsidised ULS diesel persists at the prices shown in Para 2, the savings in fuel costs per year, with fuel at 23p per litre, are most unlikely at £2,496 for a double deck and £1,560 for a midibus, to compensate operators for the additional running costs that are going to accompany the intensive use of any of the low carbon bus designs introduced over the next few years. The introduction of low carbon buses is therefore likely to be stillborn unless this hurdle can be removed.

4. A solution to the dilemma

The situation in both the above cases would be transformed, however, if the subsidy on diesel was removed, and applied in another form (eg on bus mileage). As Steve and Chris will show, in a non-subsidised environment the playing field for the different fuels that are available would be very much levelled. Likewise, with ULS diesel at its full price of 60p per litre, the fuel savings per year per bus at £ 6,547 and £ 4,069 for double deck and midibus respectively, would offer Operators a positive incentive to switch to low carbon vehicles, as such savings would outweigh any increased operating costs.

5. The Consequences of a revised subsidy regime

Under such a scenario it seems that all concerned would be winners:

1. The Operators would receive the same monetary subsidy as before, only in a different format. They would also be incentivised to match the right type and size of bus to routes. Likewise they would also pressurise the manufacturers to produce lighter and more fuel efficient vehicles.

2. A positive demand for low carbon buses would enable the Manufacturers to rapidly reduce their costs and achieve economies of scale.

3. The Treasury and the tax authorities would contribute neither more, nor less, in subsidies than at present.

4. The CO2 and Greenhouse gas emission reduction targets for the bus industry could be met ahead of schedule.

5. The overall reduction in emissions of **all** types that would ensue, would assist Local Authorities in reducing city centre pollution, especially Nox, for which buses are the main contributor.

Surely, it is worth a pilot trial, to be applied in conjunction with the introduction first 150 low carbon buses **only**, as they progressively enter service in late 2004 and early 2005?

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