

Low Carbon Vehicle Partnership

Bus Target Roadmap Sub-Group Meeting
Thursday, 2 September 2005

BWG-P-05-12

MINUTES

Attendees

Adrian Wickens, Maurice Perl,
Nigel Standley, David Martin, Kevin
Middleton, Colin Copelin, Andrew

Robinson, David Lemon, Malcolm
Watson.

Apologies

Bob Bryson, David Richards.

1. The Bus market and Purchase Patterns

Three slides were presented to the group and are attached. Slide 1 shows change in new registrations since 1979. Slide 2 shows the mix of new registrations following the introduction of low floor buses. Slide 3 summarises current market structure. Key points from the latter to note are that $\frac{2}{3}$ of new sales are to five operators, $\frac{3}{4}$ of new buses are from four suppliers and London is the dominant local market.

In terms of service operations, the market is generally dominated by deregulation. Only 15% of bus services are set by local tendering. In relation to the broader market for bus passenger services, local authorities lead on service provision by some 15% but these include dial a ride and other community transport services.

Following deregulation, the market for bus operations has settled to current levels of service operations and journey pricing. Overall, public transport bus operation remains a profitable activity for operators with a steady margin of profit. Room for growth is however limited and current/future services will remain determined by the simple profitability of a route.

Two notable and related features of the market are that it is both settled with and advantaged by a 'one fuel' approach. The benefits include an established cost structure, infrastructure and in-service investment, operational flexibility and well established in-service operational practice.

This is not to say that the industry is insensitive to change and the rapid introduction of low floor technology is one good example of its capabilities to respond to changes in market requirements. It has however a number of pre-requisites for significant technological change around costs, technology/fuels availability and reliability and as the low floor example best illustrates, a 'level playing field' for change where simple commercial drivers are absent. The current status for alternative technology/fuels in the current market is clear; it cannot compete commercially with conventional technology.

In relation to pricing and operational costs, industry has since deregulation, made significant improvements. With this in mind, operators are faced with uncertainty as to the costs of voluntarily introducing new technology. There are general expectations that both direct and indirect costs are higher and that the time for return on investment is extended beyond that for conventional technology. Industry also anticipates that in the longer term, new technology costs may not achieve parity with conventional diesel technology. Clear, authoritative models of the likely full life costs of alternative technologies and fuels would be helpful to industry.

Industry has other sensitivities to change. New regulation, including those for emissions, congestion tackling strategies, congestion due to overall traffic levels, and a broader UK decline in ridership, are just some examples. There is also a concern about perceptions of buses as mode of travel of the last resort.

Fuel costs represent about 10% of operating costs and so might be considered an area of sensitivity that it may not really be or not at least not to the significant degree that one might assume. Current increases in oil prices are not considered significant enough to open the market significantly to alternative technologies or fuels. The point at which this becomes a significant sensitivity is unclear but it is noted that in any event, the impact of oil prices tends to have a 'drag' effect on other fuels. Development and manufacturing costs of new technology are also likely to be affected adversely.

Fiscal incentives play an important role in the commerciality of alternative technology/fuels and BSOG, as primary fiscal tool, has a marked effect. Despite up to 100% rebates on biofuels, thanks to BSOG, the price of conventional fuel is still considerably lower than its alternatives. Germany is cited as an example where the fiscal incentive is set towards biodiesel to positive effect. Other initiatives such as the Low Carbon Bus Programme will be of most value in terms of developing greater market awareness of new technologies. Beyond the programme, further positive initiatives will be required, fiscal or regulatory.

Alternative fuels have additional and generic issues which impact on their commerciality in the UK. First is the knotty challenge of supply and availability. This mirrors the challenge in relation new technology. Secondly, the compatibility of biofuels with conventional technology is at present a limiting factor. Thirdly, operators may be concerned with a loss of operational flexibility. Fourthly, industry is clearly focussed on 'here and now' technology and fuels. Bioethanol for example, is not readily available whilst biomass to liquid and biogas are not expected to be available in any volume in the short

to medium term. And with major bus suppliers selecting either EGR or SCR systems to achieve the next generation of regulated emissions levels, conventional technology could remain the 'here and now' technology for the foreseeable future.

Notwithstanding all of these concerns and obstacles, the group feels strongly that the Government is right to direct resource to stimulate the adoption of low carbon buses. First, the GHG benefits and energy efficiency are real enough. Conventional buses offer a more energy efficient mode of transport to passenger cars. 30% further energy efficiency is likely to be equivalent to around an additional three average family car savings equivalent. The savings in carbon £/t to society could be attractive. More supporting data about the comparative benefits would be useful. Secondly, buses offer the best opportunity for modal shift and most likely means to support local congestion plans. Case studies where this has already been illustrated would be useful. Thirdly, and following on from this point, buses offer a mode of transport that can adopt early new technology and be clearly seen to do so. Data on the attractiveness to passengers of low carbon buses might be useful. Overall, the value of government investment into low carbon buses needs to be fully detailed in the Roadmap.

Actions:

Data collection on the benefits of hybrid –v- conventional

Carbon savings of low carbon buses

Known of full life-cycle cost-benefits of low carbon buses over conventional

2. Technologies Pathway

Bob Bryson sent his apologies for non-attendance and his first paper will be circulated before the next full meeting of the WG for consideration.

3. Fiscal Incentives for Low Carbon Buses

David Martin submitted his paper for comments, a copy is attached.

4. Opportunities and Barriers for introducing low carbon buses

The group did not have the time to review this area and deferred it to the next meeting of the WG.

5. Format and structure of 2012 Roadmap document

David Lemon kindly agreed to start working on a framework for the document. DL to report thoughts at the next sub-group meeting. The WG should consider at next meeting the current status of sub-group activity and direct next steps.

Date of Next Meeting: 18 October 2005 10:30 – 13:00 location tbc

Three slides to come from Adrian Wickens