

Project: ED06166 SAFED Feasibility Study for Buses and Coaches

Final Report

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25th May 2007

Executive Summary

The SAFED for Bus and Coach Feasibility Study, carried out between January and May 2007, aimed to determine whether or not the concept of Safe and Fuel Efficient Driving, developed by DfT for the truck and van sectors, could be applied to the Bus and Coach sectors.

The study's objectives were to develop a training guide specific for buses and coaches, determine if fuel savings and safety benefits experienced with trucks and vans were also likely to be seen in the bus and coach industry and carry out a market study to determine the best way to embed SAFED within the bus and coach industry.

The feasibility study has now been successfully completed. A new guide has been developed and takes into account a number of aspects of the bus and coach sector, in particular the use of automatic gearboxes, the requirement for flexibility during the training day and the variation in the type of fuel management and monitoring found in the industry.

The pilot training provided strong indication that SAFED would achieve similar results in the bus and coach sector to that achieved in the truck and van sector. Although not extensive enough to be considered scientifically conclusive, the results were consistent with those found for trucks and vans. The majority of drivers showed a 5-15% fuel saving with an average of 12%, an average 40% reduction in gear changes and a 60% reduction in safety related faults. This would suggest that widespread SAFED training has the potential to achieve significant reductions in carbon emissions (i.e. 100,000s tonnes per annum) and also save the industry £100 millions per annum in reduced fuel and accident costs.

The market study determined that it would be possible to build the infrastructure necessary to deliver SAFED within a year, in terms of developing 200-300 trainers (both in-house and commercial).

The market study and workshops held with the industry also enabled a strategy to be developed for embedding SAFED. The core of the such a strategy would be to develop a set of industry specific case studies, covering a range of business size and type, vehicles and journeys and a widespread number of industry advocates at the operational level. This is necessary not only to develop an experienced set of trainers, but crucially to provide the required evidence and motivation within the industry at the operational level, to invest in SAFED training and commit to develop the fuel monitoring and management systems necessary to ensure short term gains are maintained over the longer term.

The uptake of SAFED could also be assisted by the CPC regulations that come into force in October 2008. However this is not guaranteed due to the nature of this practical course, with 2 drivers being trained by one trainer, it does require more investment from the operator than a classroom based course.

The core recommendation is therefore for DfT to fund a demonstration programme, delivering a network of approximately 300 SAFED Bus and Coach trainers, some 25 case studies across the industry and training approximately 1% of drivers within the

industry. This will provide the necessary motivation and infrastructure to enable widespread training thereafter to be delivered on a commercial basis. Ideally the programme should aim to be completed before the implementation of Driver CPC (i.e. before October 2008) in order to maximise the chance of an early take up by the industry. The budget for such a demonstration programme is likely to be between £0.5m and £1m.

Finally, SAFED for Bus and Coach represents the fourth SAFED guide produced by the Department. The earlier programmes have been taken forward and are in various stages of commercialisation. The Department now need to consider how to co-ordinate its approach to the implementation of SAFED across the different sectors and determine how best to manage its SAFED brand to ensure it maintains its quality and relevance into the future.

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Introduction

This final report of the Safe and Fuel Efficient Driving (SAFED) Feasibility Study brings together results of the projects Market Study, Pilot Training, Workshops and Guide Development.

The main body of this report is based on the Market Study and provides basic facts and figures for the Bus and Coach sectors concerning fuel use, safety, number of drivers etc. It then considers the working practices of the industry, and how the market may be segmented. The report also considers the extent of training in the industry and the potential implications of the CPC regulations coming into force in October 2008. The study summarises the core and additional benefits of widespread take up of SAFED and what may be required to embed SAFED within the industry.

Included in this report are four Appendices as follows:

- Appendix 1: The new guide, SAFED for Buses and Coaches
- Appendix 2: Workshop Report 25th February
- Appendix 3: Workshop Report 28th April
- Appendix 4: SAFED Bus and Coach Pilot Training

Basic Facts and Figures

How many bus and coach drivers are/need to be trained each year?

Although we don't have precise figures, it is possible to make an estimate of the number of bus and coach drivers that are trained and may need training in future.

The CPT estimates that 167,000 people are employed in the bus and coach industry, of which 126,000 are drivers and crew. The vast majority of these will have undergone induction training when taking on a post with a new company.

GoSkills estimate that 32,500 drivers need to be recruited each year to replace those leaving the industry (i.e. a turnover rate of just under 20%). We may assume that these drivers need some form of formal induction training. This leaves 93,500 drivers crew for ongoing development training. Currently, development training is largely classroom based involving for example IT, customer care, conflict resolution etc. There is evidence that some of the larger companies will invest in post-induction, driver development training, but there appears to be little training specifically associated with fuel efficiency.

Under the CPC directive, drivers will have to receive 35 hours of continuing professional development training every five years. If we assume that SAFED would contribute 7 hours then this would suggest that the total amount of SAFED training required by the Bus and coach industry would be:

- 941,500 hours every 5 years or;
- 188,300 hours each year or;
- 26,900 days each year.

Thus if a driver requires SAFED type training once every five years then this would suggest that 26,900 drivers would need to be trained each year.

(DfT Bus and Coach Data)
(Bus GPG)
(Driver CPC)

What is the current fuel use by market sector and what are the trends?

Buses and Coaches use approximately 1.3 million tonnes of oil equivalent fuel each year and travelled 3.8 billion vehicle kilometres in 2004/5. Of this figure 2.6 billion-km were used by 'Local Bus' and 1.2 billion km by 'Other Bus and Coach'.

The National Atmospheric Emission Inventory (NAEI) estimates that fuel use in terms of g per km for an urban bus journey to be 415g/km and between 202g/km and 206g/km for other types of journey. If we assume Local Bus journeys are largely urban and that Other Bus and Coach journeys are largely non urban, then this suggests the following:

- Local Bus – 2.6 billion km @ 415g/km = 1079 billion g (1.079 million tonnes)
- Other Bus and Coach – 1.2 billion km @ 204g/km = 245 billion g (0.245 million tonnes).

In other words, Local Bus journeys account for 83% of fuel used in the bus and coach industry. The number of vehicles km travelled each year has remained relatively stable over the last 10 years, varying by an average of less than 0.5% each year. Overall trend is slightly down (i.e. a reduction of 2% since 1995/6).

If we assume that there are a maximum of 126,000 drivers, the fuel use per driver is estimated to be 10.5 tonnes per annum.

(Pub Trans Stats 2006)
(Energy Consumption)
(NAEI 1999)

What is the current accident rate by market sector and what are the trends?

In 2004, the total number of Bus and Coach user casualties were as follows:

- Fatal - 20
- Serious – 468
- Slight – 8332

Because of the relatively low number of fatal accidents it is not possible to see a clear trend, however, for serious and slight casualties the trend over the last ten years is downward at around 17% reduction compared with the 1994 – 1998 average.

(Road Casualties 2005)

What is the capacity in terms of number of training providers and in-house trainers?

It has been difficult to determine the precise number of PCV trainers in England and Wales. In principle anyone who has held a PCV licence for more than three years and is over 21 can train someone to obtain a PCV license. Given there are an estimated 126,000 drivers at any one time therefore the potential number of trainers is very large, although it is not reasonable to assume that all would be suitable trainers.

The high turnover in the industry over the last few years has led to a large number of trainers within bus and coach operations to train new drivers. Current capacity should be sufficient to train over 30,000 new drivers each year for their PCV license and therefore these trainers could also be trained to deliver SAFED training in addition.

In terms of external training providers, many and possibly the majority of HGV trainers also hold a PCV licence and therefore may wish to train to be able to offer this training product.

Working Practices and Market Segmentation

What are the typical working practices in the industry (Hours, shifts, distance, type, stops, 'loads' etc)?

Shift patterns vary significantly within the industry. Individual shifts may be as long as ten hours (with breaks). Shift patterns are an issue within the industry and have been sighted as an important barrier to recruitment. In a recent study, bus companies were asked which issues adversely affect staff recruitment and turnover:

- 20% Shift patterns
- 18% Passenger behaviour
- 16% Stress through congested road conditions
- 15% Lack of status/esteem of jobs in public transport

Stress through congested road conditions and passenger behaviour were viewed as the most difficult areas to improve.

With respect to practical training of any type, shift patterns relating to schools may be problematic. For small and medium sized coach companies, the school run is of particular importance, taking drivers out for early morning (up to 9.15) and mid afternoon (between 3.00pm and 4.00pm).

The vast majority of bus drivers are full time (i.e. greater than 95%). There is some evidence that this is changing, for example at Stagecoach approximately 6% of its drivers are part time.

The average length of a Local Bus passenger journey is less than 6km, whereas for other Bus and Coach journeys it is over 30km. The type of journey for Local Bus can be expected to be largely on roads with speed limits of 30mph or less, whereas for Other Bus and Coach journeys will be on less congested roads with limits typically 40mph or higher. The average number of passengers on a local bus journey is approximately 9, whereas for other bus and coach journeys they average are closer to 19. 75% of bus passengers are either under 30 or over 60 years of age. 60% are female. In terms of the purpose of a bus journey:

- 27% is for shopping
- 22% for commuting/business
- 16% for leisure
- 16% for education
- 14% classified as 'Other Personal'

Finally, and critically for SAFED, it appears that there is little or no fuel monitoring on board vehicles for either Buses or Coaches. Retrofitting fuel-monitoring devices may be as much as £3,000 per vehicle, however in modern buses the information can easily be displayed using a handheld device.

(Bus GPG)
(CPT On the Move)

How can the market be segmented?

In considering how the market can be segmented, there appears to be a relatively clear distinction between Local Bus and Other Bus/Coach Journeys, in that Local Bus journeys are typically shorter between stops, carried out on more congested roads and much more fuel inefficient in terms of both fuel used per vehicle and passenger km.

Other ways to consider how to segment the market are as follows:

- 1) London vs Rest of England. London has an estimated 21,000 bus drivers (17% of the total), a single managing operator and specific market conditions.
- 2) Major vs Minor Operators – in 2004/5 three major groups controlled 49.1% of the market (as measured by turnover). In addition, the bus industry is comprised primarily of large national organisations, while the coach hire industry consists mainly of small operators (7,900 companies in total operating approximately 22,000 coaches although just over 14,000 were operated by 500 companies).
- 3) Types of Bus – There are three distinct types of Bus. Double Deckers, Full Size Single Deckers and Smaller Single Deckers. In recent years there has been a trend away from Double Deckers to Full Size Single Deckers and Minibuses. In 2005/6 there were 80,800 vehicles in stock as follows:
 - Single Deckers up to 16 seats (15,600)
 - Single Deckers >16 seats (49,700)
 - Double Deckers (15,500)
- 4) Coach vs Bus – as well as differences in journey length and type, coaches are typically twice as old as buses and operate for 15-20 years. Also newer coaches tend to be used for longer journeys, with older coaches used for school runs etc.

(Transport Committee)
(Bus Industry Monitor)
(Bus GPG)
(LEZ)
(DfT Bus and Coach Data)

Extent of Training

Why does the industry train drivers?

Drivers are trained primarily for PCV licence acquisition; to induct the driver into a new company; to provide additional skills such as customer care, conflict resolution and in some cases IT skills.

Commonly there are two routes for PCV licence acquisition:

- By an independent training provider.

This can be either an individual paying for the training, SME bus/coach company using the provider for their training, or JobCentre Plus sponsorship.

- By an employer (i.e. using an in-house trainer)

This is usually larger bus or occasionally coach companies.

These methods of training are then further divided into training to gain manual or automatic licences. Normally, privately funded licence acquisition is manual, as it gives greater employment opportunity; whilst in-house (bus) is usually automatic.

What is the extent of training in PCVs and what areas are covered?

Different training providers will apply different criteria, ranging from basic licence acquisition with 'no frills' to inclusion within a wider company training programme for in-house provision. However, fundamentally, students are instructed to pass the PCV driving test. Further improvement training can be delivered after some experience is gained.

Below are some examples of in-house training programmes:

Stagecoach operates an extensive induction process, beginning with formal company induction. PCV training runs from day two until completion. After tests, training covers customer care, disability awareness, depot procedures, ticket machine and radio training, vehicle familiarisation and initial route learning.

Induction at Travel West Midlands (TWM) has two parts: the first is undertaken at its centralised Driver Training School and the second is carried out locally at each depot. Induction covers comprehensive information about the company through to detailed knowledge about an individual depot's working practices. This part of the training is managed by one of 20 Garage Based Instructors (GBI's)

(Bus GPG)

In terms of training, what are the main differences between different market sectors? How is training quality controlled?

The biggest difference is between in-house training provided by the larger companies and the individual purchased training packages from commercial providers. External training provision is marketed through traditional methods and is usually provided by LGV (truck) training providers and if applicable can attract public funding (e.g. JobCentre Plus).

In-house providers are internally assessed as trainers. Commercial training providers will rely on their pass rates and being accredited (e.g. for CPC training for public funding contracts).

How is the practical training carried out, what qualifications are required for trainers? How much does training generally cost? What are the trends in training?

Normally students are given practical training in pairs or groups of 3-4 with instruction including sharing the comments passed to fellow students. The only requirement to train students for a PCV licence is to be over 21 with a PCV or LGV licence for 3 years. There are other instructor qualifications such as ADI and NVQ Level 3 in Driving Instruction available. A privately purchased training course can vary from £800 to £1500.

Prior to license acquisition the student will be given an assessment and the number of training days required will be estimated at that point. The forthcoming Driver CPC will change the theory/practical balance from 50/50 to 70/30. With the increase in costs that will be associated with the new Driver CPC in 2008, it may be that in-house training providers will make penalties for leaving the company more severe.

Are there examples of standard courses, guides etc?

The Official DSA Guide to Driving Buses and Coaches (published 2005) is the core text and will be adapted by each provider. A number of operators will also use NVQs to formalise the skills acquired by their employees and TfL require BTEC qualifications for bus drivers operating in London.

Stagecoach offers various vocational qualifications. Nearly 6,000 staff have completed an NVQ in road passenger transport, with a further 1,500 currently studying for the qualification. Travel West Midlands has successfully implemented vocational training programme that drivers are actively encouraged to participate in. As a result 66% of all Travel West Midlands drivers have a vocational qualification (NVQ, SNVQ or BTEC) with another 10% working towards obtaining one.

First has secured European funding with Aberdeen Skills and Enterprise Training to develop a DVD based learning and development tool for driver qualifications This combines video clips of live operations, together with two and three dimensional computer generated graphics.

As the franchising authority Transport for London (TfL) requires London bus companies to invest in training to assist the recruitment and retention of bus drivers. BTEC qualifications aim to standardise training across London to improve driving standards, customer awareness and service provision. It covers issues such as defensive driving skills, health, safety and security, operating the bus service through classroom and practical sessions. All newly employed drivers must achieve their BTEC within a year.

Driver Training BTEC Course:

- Introduction to the bus industry
- Operating the Bus Service
- Health Safety and Security
- Driving Skills
- Working with others

With respect to Driving Skills – demonstrate the principles of good driving practice (drivers will be formally assessed by a DSA Approved Assessor), identify risks in relation to bus driving, apply appropriate driving techniques in a variety of driving situations

Note, despite this, there does not appear to be any widely available training resources such as guides, DVDs or videos aimed specifically at PCV drivers in relation to fuel savings.

(Bus GPG)
(CPT On the Move)
(Transport Committee)

CPC

What are understood to be the current requirements of CPC?

The soon to be introduced EU Driver Training Directive will require specific training for bus drivers. Each new driver will require a CPC (Certificate of Professional Competence) requiring more study than at present. This translates into each driver requiring to undertake 35 hours training every five years known as periodic training.

Periodic training is designed to confirm and expand on the existing knowledge and skills of each driver to ensure they continue to be confident, safe and fuel-efficient drivers.

Only a training centre approved by the joint Approvals Unit for Periodic Training (JAUPT) can deliver the 35 hours of training. The minimum length of a training course that contributes to the periodic training must be 7 hours. This can be split into 2 roughly equal parts for delivery coherence but must be completed within a 24-hour period. The content, title and method of delivery of each training course must be approved by JAUPT.

It affects the drivers as follows:

- **Existing PCV Drivers:** All professional PCV drivers who hold a full, valid category D,D1,D+E OR D1+E licence at 10 September 2008 will need to complete the 35 hours of periodic training by 10 September 2013. They will then have to complete 35 hours of training in every subsequent 5-year period to maintain the CPC.
- **New Drivers:** New drivers who gain their initial Driver CPC after 10 September 2008 will immediately begin their periodic training and will therefore need to complete 35 hours of training within 5 years of attaining their CPC. This training will then continue every subsequent 5-year period to maintain the CPC.

The periodic training will be monitored by:

- **The DSA** - holding a central record system and ensuring qualification cards are up to date
- **The Driver** - responsible for ensuring they have attended sufficient periodic training hours by the relevant date
- **The Employer** - must not knowingly allow someone to drive professionally without a driver CPC. Will have access to central training records with the permission of the driver
- **Approved Training Centres** – these will be required to record information on course attendees on the central training record.

The Course Syllabus

The Directive states that the periodic training must include some of the following subjects:

- Advanced training in rational driving based on safety regulations
- Know the characteristics of the transmission system to make the best use of it
- Understand the technical characteristics and operation of the safety controls in order to control the vehicle, minimise wear and tear and prevent disfunctioning
- Ability to optimise fuel consumption
- Ability to ensure passenger comfort and safety
- Ability to load the vehicle with due regard for safety rules and proper vehicle use
- Application Regulations
- Know the social environment of road transport and rules governing it
- Know the regulation governing the carriage of passengers
- Health, Road and Environmental Safety, Service & Logistics
- Make drivers aware of the risks of the road and accidents at work
- Ability to prevent criminality and trafficking in illegal immigrants
- Ability to prevent physical risks (ergonomics)
- Awareness and importance of physical and mental ability
- Ability to assess emergency situations
- Ability to adopt appropriate behaviour to help enhance the image of the company
- To know the economic environment of the carriage of passengers by road and the organisation of the market- carriage of passengers by road in relation to other modes of passenger transport, different activities involving the carriage of passengers by road, international transport, organisation of the main types of companies for the carriage of passengers by road.

(Driver CPC)

How would SAFED assist continuing professional development?

SAFED training will have relevance to several parts of the syllabus and specifically

- Advanced training in rational driving based on safety regulations
- Know the characteristics of the transmission system in order to make the best use of it
- Understand the technical characteristics and operation of the safety controls in order to control the vehicle, minimise wear and tear and prevent disfunctioning
- Ability to optimise fuel consumption
- Ability to ensure passenger comfort and safety
- Ability to load the vehicle with due regard for safety rules and proper vehicle use
- Application Regulations
- Make drivers aware of the risks of the road and accidents at work
- Awareness and importance of physical and mental ability
- Ability to adopt appropriate behaviour to help enhance the image of the company

Fuel Efficiency and Safety

What is the current fuel efficiency by market sector and what are the trends? What difference in fuel consumption/carbon emissions could SAFED make?

The NAEI uses the following fuel efficiency figures for buses and coaches, depending on the type of journey:

- Urban - 415g/km
- Rural (Single carriageway) - 203g/km
- Rural (Duel Carriageway) -202g/km
- Motorway – 206g/km

This implies fuel efficiencies of 7 miles per gallon for urban roads rising to 14 miles per gallon for motorways.

(NAEI, 1999)

Fuel efficiency overall will have improved over the last ten years; however there is colloquial evidence that the more recent development of highly accessible buses may be less fuel-efficient.

Based on evidence from the trucks and vans and initial result from the recent Bus and Coach pilot study, SAFED should be able to make a reduction of at least 5% in fuel use and possibly 10% overall.

If all drivers could be trained over the next 5 years, by 2103, SAFED could be expected to save 130,000 tonnes of fuel per year. With an average fuel price (excluding VAT) 72p per litre or 90p per kg, this amounts to just over £117 million per annum.

In terms of carbon emission, 130,000 tonnes of fuel saved per year is approximately equivalent to 111,000 tonnes of carbon per year.

What types of accidents are characteristic of the industry? How much do they cost? What difference in accident rates could SAFED make?

In terms of costs, the cost of accidents involving a casualty can be estimated as follows:

- Fatal – 20 @ £1,428,460 = £28,569,200
- Serious – 468 @ £160,510 = £75,118,680
- Slight – 8332 @ £12,380 = £103,150,160

Thus the total cost of bus and coach accidents involving a casualty can be estimated as £207million in 2004.

Fatal accidents and serious injury accidents make up approximately 5% of all bus and coach accidents involving injury. The vast majority of accidents involve either slight or

no injury.

What is not well known is the number and cost of accidents not involving injury. Colloquial evidence suggests this is nevertheless significant and may cost a similar order of magnitude to accidents involving injury.

The impact of SAFED on accident rates is much harder to estimate, since accident rates require longer time periods to determine accurate trends. There is some evidence from training providers that development training of drivers reduces accident rates by approximately 40% and if embedded into a company culture can be further reduced by as much as 80%.

Taking a figure of 40% would suggest reducing the number of fatal or serious injury accidents by almost 200 and slight injury accidents by over 3,300. In terms of cost savings from accidents involving injury, this would amount to £82 million per with year, with an additional significant amount of saving from non-injury accidents.

Additional Benefits

Besides accidents and fuel use, what other issues face the industry (re customers, market trends, business performance, staff etc)? What difference could SAFED make to these issues?

Besides fuel efficiency and safety, the following issues would also be affected by SAFED

- Staff Retention and Recruitment
- Sick leave
- Customer Complaints
- Reliability and punctuality
- Industry viability

Staff Retention and Recruitment

Besides shift patterns, a major issue affecting staff retention and recruitment is stress through congested road conditions. Drivers undergoing SAFED training often report considerable reduction in stress levels.

Sick Leave

SAFED specifically should also contribute to reduced sick leave through reducing driver stress levels. In addition, levels of sick leave have been linked to an organisation's culture. Metro achieved re-accreditation for Investors in people (IIP) and has received a Matrix award for staff development and training. One measurement of its strong culture is that over 50% of the workforce had no time off through sickness in 2005.

Customer Complaints

In London, in 2004/5 of the 43,043 complaints, 34,634 were attributable to the driver (80% of all complaints). A key complaint concerns drivers who move away from stops before passengers are seated or get off the bus. In addition, heavy acceleration and braking causes will also contribute to complaints. SAFED specifically aims to minimise excessive acceleration and braking for a smooth ride and to dispel the myth it leads to shorter journey times.

'...there are drivers who take the safety and comfort of their passengers seriously. I travelled on a 20 bus from Whipps Cross Hospital last week and it was the most comfortable bus journey I had experienced for a long time. I thanked the driver for driving smoothly. If only there were more like him.'

Reliability and Punctuality

Reliability and punctuality are often key indicators for a bus service. The main causes of delays are:

- Leaving the depot late
- Road Conditions
- Weather conditions

I.e. not the driver! Colloquial evidence suggests that nevertheless, drivers respond to delays by increasing acceleration and braking. This invariably does not save time, but makes for a more uncomfortable and unsafe journey. SAFED plays an important role disconnecting excessive acceleration and braking from journey time. In addition, by reducing accidents and wear and tear, it should also reduce the number of times vehicles are late leaving depots.

Industry Viability

In the last year, the bus and coach has seen it's highest cost increases in fuel, insurance and maintenance costs (average increases of 17%). Other costs such as staff costs, vehicle depreciation have increased at about 6%. SAFED is specifically designed to reduce fuel, Insurance and maintenance costs.

(Transport Committee)
(Bus GPG)
(Bus Punctuality)
(CPT Cost Index)

Embedding SAFED

What experience has there been of attempts to embed good practice with respect to SAFED and fuel efficiency in the industry? What would be required to embed SAFED?

Good practice take up requires both a motivated industry and an infrastructure in place to support the implementation of good practice.

With respect to motivation, safety and financial drivers are commonly considered the most important. Fuel use will also have a major impact as well as the requirement to comply with CPC regulations. SAFED performs well on all these issues. That said, SAFED would represent a considerable investment on the part of the industry compared with other forms of training and there is also the risk that its effectiveness to particular individual circumstances would be questioned.

To deal with these last two points, specific case studies may be essential to demonstrate pay back and show the applicability to a particular sector. The following table shows an example of the range of case studies that could be developed.

Company Type

Bus

Coach Company Size

Large

Small Journey Type

London

Urban

Semi urban

Rural

Long Distance Vehicle Type

Single Decker

Double Decker

Other

Finally, SAFED would need to be promoted through a communications campaign, ideally with the support of intermediaries such as GoSkills, CPT etc.

With respect to infrastructure, SAFED requires

- A network of suitably qualified trainers (approximately 300 both in-house and commercial trainers serving the large and small operators). The trainers qualified to deliver SAFED would be existing trainers and SAFED would be a part of their portfolio of services.
- A suitable management structure to provide quality assurance and control, issue certificates and manage the driver database, provide SAFED trainer training and update support materials and guidance.
- Published guide and support materials for trainers and drivers (assessment pads, certificates etc).

The network of suitable qualified trainers could be developed in a relatively short period of time, given the number of individuals who could potentially be trainers and the experience of the truck and van programmes.

The management structure would need to align with the requirements of DSA, CPC and also GoSkills. This structure will be important in ensuring SAFED continues beyond any initial demonstration programme.

Ideally, the trainers, management structure and case studies would be in place by September 2008 to coincide with the start of Driver CPC.

Conclusions and Recommendations

Conclusions

- The widespread take up of Safe and Fuel Efficient Driving (SAFED) within the bus and coach industry has the potential to save several £100 million per annum in reduced fuel use and reduced accidents.
- The industry could cut its carbon emission by over 100,000 tonnes per annum, representing approximately one tonne per driver per year.
- SAFED would also contribute to the industry achieving other key performance indicators, for example customer satisfaction, reliability staff retention etc.
- Currently there is little if any practical training in fuel-efficient driving techniques within the industry and little material to support this.
- There are a large number of trainers within the industry who could potentially become qualified in providing SAFED training, serving both the large and small companies.
- Shift patterns within the industry may be a barrier to take up of SAFED, but the requirements of CPC (7 hours training in one 24 hour period) should minimise this.
- Lack of fuel monitoring capability within the industry is a major barrier and the industry will need to be encouraged to take up fuel monitoring more robustly.
- Market segmentation suggests that approximately 25 case studies should cover the key variations in types of company, size, journey and vehicle.
- SAFED training for large operators is probably less problematic than small operators.
- SAFED would form a significant part in terms of fulfilling a companies CPC obligations.
- The requirements of CPC and the accreditation structure put in place by DSA and GoSkills would need to be taken into account in the ongoing management and quality assurance and control of SAFED.
- CPC, by itself, will not ensure the take up of SAFED by the industry. Although the pay back time would be short, SAFED requires higher investment of time and resources compared with other training courses. The evidence needs of the industry, demonstrating the value of SAFED are correspondingly very high. This would be an issue for all types of companies but particularly smaller companies.

Recommendations

It is therefore recommended that the DfT

- Implement a demonstration programme to produce approximately 25 case studies. These case studies should quantify fuel use at the depot level, at least, before and after training for specific types of company, size, journey and vehicle to reflect the variation in the bus and coach industry and over a period of several weeks/months.
- Train a network of between 200 and 300 current in-house and commercial PCV trainers to be in a position to deliver SAFED.
- Promote the programme through a series of events etc, learning from the effectiveness of previous programmes.
- Determine with DSA and GoSkills the most appropriate management structure for the maintenance of quality assurance of SAFED and ensure that the guide and support materials can be further developed over time to reflect changing market conditions.

DfT's SAFED for trucks and SAFED for vans was previously rolled out to their respective sectors with several thousand drivers trained. There is therefore considerable experience within DfT on the most effective approaches to the design of a demonstration programme.

The key differences in terms of the design of a demonstration programme for Bus and Coach compared with trucks and vans, are the dominance of large groups particularly in the bus sector, the proportionately fewer drivers and the proximity of CPC regulation. It is recommended that a demonstration programme for Bus and Coach reflect these differences by.

- Focusing on the preparation of relevant case studies as a priority through direct relationships with key operators
- Training sufficient drivers to deliver the case studies (approximately 1,250)
- Aiming to complete the programme before September 2008.

This would make the programme slightly smaller than the truck and van programmes and to be delivered over a shorter time period.

In terms of a budget for such a demonstration programme, based on the previous programmes and scaling for size, it is recommended that a budget of between £500k to £1m is considered, depending primarily on the number of drivers to be trained and the carbon savings required in the short term.

References

Short Reference Code	Reference Title
Bus GPG	Bus Partnership Forum. Bus Industry Good Practice Guide in Staff Recruitment & Retention. October 2006.
Bus Industry Monitor	Bus Industry Monitor 2006.
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Appendix 1 SAFED for Buses and Coaches Guide

Appendix 2: Workshop Report 28th February

Appendix 3: Workshop Report 25th April

Appendix 4: SAFED Bus and Coach Pilot Training