

Low Carbon Vehicle Procurement Programme
Discussion Paper by the Department for Transport

The DfT has requested that the LowCVP circulate this discussion paper to the members of the Partnership and has invited responses either individually or collectively by the 14th September.

1. Introduction

1.1 In the Energy White Paper and Low Carbon Transport Innovation Strategy (LCTIS) the Government announced funding of an initial £20m to develop a new programme of financial support for the public procurement of lower carbon vehicles.

1.2 This paper sets out the background to the new programme and discusses some of the main issues relating to the implementation and development of the programme. These include questions such as what the overall objectives of the new programme should be, how the programme should be structured, operated and managed, and which kinds of vehicles and technologies should be supported through the programme.

1.3 Responses to the paper should be sent to Roy Collins in the Department for Transport - e-mail roy.collins@dft.gsi.gov.uk – by Friday 14 September 2007. The views of, and issues raised by, respondents to this paper will be considered carefully and taken into account in advising Ministers on options for the detailed implementation of the new programme.

2. Background

2.1 The Low Carbon Transport Innovation Strategy – available at www.dft.gov.uk/pgr/scienceresearch/innovation/ -sets out the Government's overall approach to incentivising lower carbon technology development in the transport sector. It recognises that Government has a role to play in incentivising innovation and technology development across all stages of the "innovation chain" – including through providing support for research & development and through mechanisms which value carbon savings achieved in commercial markets.

2.2 Chapter 4 of the LCTIS considers the road sector and sets out a wide range of actions that the Government is taking at the domestic and international level to strengthen incentives for the development and commercialisation of lower carbon vehicles. Paragraphs 4.29 and 4.30 of LCTIS are most relevant in relation to the case for development of a new programme of support for lower carbon vehicles – as the following extract indicates:

"Limited market pull from consumers impacts on the range and kinds of vehicles which automotive companies bring to market. Moreover, commencing product development is high risk for manufacturers. As the technology and product development process moves close to commercialisation costs rise substantially. And

while the scale of investment is considerable the prospects of return on that investment remain uncertain. These high risks of new model development tend to encourage manufacturers to favour incremental adjustments to existing models over radical re-designs for improved fuel efficiency – there is a natural degree of risk aversion in bringing new models or technologies to market. The fact that a new lower carbon technology has been successfully demonstrated in a prototype model does not necessarily mean that it will be rolled out at commercial scale.

Moving successfully from the demonstration to the commercial phase of technology development is thus one of the most challenging elements of the innovation process. Reducing risks at this stage can therefore help increase the rate at which new technology options can be brought to market... Governments can play an important role in this area through interventions focussed on public procurement and creation of niche markets for lower carbon vehicles. These interventions can be effective as, by increasing the visibility and certainty of an early market for a new lower carbon model – subject to the attainment of cost and performance criteria – they have the potential to reduce the initial risks faced by companies when considering whether to introduce a new technology to the marketplace.

2.3 These paragraphs indicate that the Government believes that public procurement can potentially be utilised – within a wider suite of policy measures – to help accelerate the market introduction and commercial deployment of lower carbon vehicles. Public sector organisations which may potentially participate in the new programme include central Government Departments and their agencies, local authorities and county councils, law enforcement organisations (Police and prison services) and National Health Service organisations. At this stage no decisions have been made about which public sector organisations would participate in the scheme but programme funding to such organisations would need to be such that no state aid issues were involved (see section 5 for further details).

2.4 We estimate that the public sector vehicle fleet comprises roughly 100,000 heavy duty vehicles and at least 200,000 light duty vehicles – with around half of light duty vehicles leased and half owned. The majority of light duty vehicles are passenger cars, vans or mini-buses. Heavy duty vehicles cover a broader range of more disparate vehicle types. AEA Energy & Environment estimate that around 13,000 new heavy duty and 75,000 new light duty vehicles either purchased or leased by public sector organisations each year. These figures are estimates and are subject to considerable uncertainty. However they are indicative of the broad scale of public procurement of vehicles and indicate that there is a potential scope to conduct procurements of relatively significant scale for lower carbon vehicles.

2.5 At this stage the proposed programme is limited to *public sector* procurement. This reflects the Governments commitment to take a leading role in reducing the climate impacts of its own activities as well as our desire to seek to explore the potential for public sector procurement to help drive the commercialisation of new technologies in this area. In addition there is a practical issue of considering whether it will be possible to develop a focussed programme of funding to selected public sector organisations, where such funding would not constitute state aid and so would not require state aid approval from the European Commission. We do not rule out extending the scope of a future programme in this area to include broader public and

private sector vehicle procurement – where such funding might involve state aid issues and so might require state aid approval from the European Commission. It would however be necessary to establish the viability of a broader scheme based on the initial public sector experience.

Questions

What role could public procurement play in helping to stimulate the market for new lower carbon vehicle technologies in the UK? Do the above paragraphs of LCTIS accurately capture what that role may be?

3. Objectives of the new Programme

3.1 A number of considerations impact on the objectives envisaged for the new programme within the Government's overall policy mix in this area. The case for the programme developed within the LCTIS did not envisage activity which sought to increase the market share of lower carbon vehicles which are already widely available in the UK. The Government's existing fuel duty and Vehicle Excise Duty (VED) regimes already provide fiscal incentives for consumer purchase of lower carbon vehicles. The Government has also made clear in the Energy White Paper its support for the development of demanding and mandatory carbon dioxide targets for new vehicles at an EU level. In addition, in relation to Government's own vehicle procurement, we have set a new target in the Energy White Paper – to achieve a fleet average car procurement target of 130g/km CO₂ by 2010/11 for new cars purchased by Government and used for administrative operations¹. We will keep this target under review and will examine the case for extending the scope of the target (eg to operational vehicles or the wider public sector) following further analysis.

3.2 Given the above, the anticipated objective of the new programme would be to seek to accelerate the market introduction of new lower carbon technologies and products which are not yet available, or are only just emerging, into the UK vehicle market place. A programme which was successful in meeting these objectives would be likely to have the following criteria:

- the successful demonstration of a range of vehicles which have significantly lower CO₂ emissions (for a given vehicle size, performance specification or type) than those currently widely available on the market
- the creation of opportunities to validate and test new technologies in real world conditions in respect of their environmental and emissions performance
- evidence of innovation benefits in terms of learning, cost and risk reduction and the securing of economies of scale in relation to new technologies
- significant subsequent orders for additional vehicles from both public sector and private sector organisations

¹ "Administrative operations" means activity relating to all normal, day to day tasks that support the running of a Department or agency. Most mileage is expected to fall within this category

Questions

Do you agree with the overall proposed objective of the programme as set out above?

Do you agree with the proposed criteria against which the success of the programme would be judged? Are there any other key criteria in this area?

Technological ambition and scale of procurements

3.3 Even within the objectives outlined above there are choices to be made about the extent to which the new programme should seek to support more radical technology development versus somewhat more incremental and evolutionary developments of technologies which are closer to market. There may be a balance to be struck between the level of technological ambition in the programme and its likely effectiveness in demonstrating the potential of public procurement to accelerate market introduction of lower carbon vehicles. On the one hand, there would seem to be limited benefit in supporting the public procurement of vehicles which demonstrate only extremely minor improvements on today's technology and carbon emissions and which could very well be brought forward by the vehicle market in the near future as a result of existing policy measures or already anticipated regulatory developments. Vehicles demonstrating minor incremental improvements to today's gasoline and diesel internal combustion engine technologies – or indeed hybrids which offered little or no technological or emissions advances on today's commercially available vehicles - could be argued to fall into this category. An element of technological ambition (and therefore risk) should be inherent in the programme if it is to be justified as a useful form of Government intervention in the vehicle market.

3.4 At the same time the programme could be in danger of failing to achieve its objectives if it supported only the demonstration of technologies which, by virtue of their high costs or remaining technological barriers, had limited prospects of being more widely commercialised over the next 10-20 years. Such a scheme could be at particular risk of being criticised for having high costs, delivering limited carbon or wider market benefits and for supporting the provision of unreliable vehicles. It could undermine the plausibility of public procurement as a useful mechanism for accelerating the development of lower carbon technologies.

3.5 There are also related choices to be made about the scale of procurements supported through the programme. Broadly speaking, within the available (and limited) funding envelope there is a choice between supporting a relatively small number of larger procurements or a relatively larger number of small procurements. Arguments in favour of supporting a relatively larger number of smaller procurements are as follows:

- A broader variety of technologies and vehicle types could be demonstrated at fleet scale through public procurement – with consequent enhanced learning and experience benefits

- A broader spectrum of public sector organisations could potentially participate in the scheme – this may help attract wider interest, publicity and thus knock-on benefits in terms of highlighting the emerging technological options available to other public and private sector fleet operators
- A wider diversity of procurements could help spread the risks within the programme – reducing the potential negative impacts of a single procurement or technology failure on the wider programme.

3.6 A programme with a high level of technological ambition, supporting riskier and further from market technology demonstration projects, would also appear to be more suited to a model involving a larger number of small procurements. In such cases, where technology risks are higher, there could be limited merit in, or potential for, larger scale procurements – particularly within the early years of a developing programme.

3.7 Conversely a larger scale procurement model is perhaps more suited to a somewhat more modest level of technological ambition within the programme. Arguments for developing a more focussed and limited number of larger scale procurements are as follows:

- Larger scale procurements should offer much stronger visibility of future demand and should therefore attract greater interest on the part of the automotive industry and its supply chain. Larger procurements are more likely to attract serious proposals from credible and influential companies in the industry – including the provision of the necessary technological support, servicing, repairs and so on which could be critically important for fleet managers and participating organisations.
- Larger procurements offer greater opportunities for economies of scale. This would not only improve value for money for the public sector in terms of the number of vehicles delivered under the programme and the carbon savings obtained, but would also improve the prospects for the programme to help companies in their objectives of assessing and testing the scope for achieving larger scale costs reductions in the development of new technologies. Such costs reductions are of course critical to decisions on the commercial roll out of new products to the wider vehicle market.

3.8 For the above reasons, the development of larger scale procurements could have greater potential to impact positively on automotive company decisions in terms of the future roll out of new lower carbon products into the wider vehicle market. While it may remain in doubt as to whether the first public procurement activities supported by the new programme – whose funding is limited to £20m in its initial stage – could be of sufficient scale on their own to trigger the wider commercial roll out of lower carbon vehicles, a successful procurement process and fleet demonstration could play a significant role in encouraging a decision in favour of commercial roll out, as well as significantly increasing the potential for further procurement opportunities from other public and private entities.

3.9 There are clearly arguments in favour of both a larger and a smaller number of procurements to be supported within the available budget and we are interested in the views of stakeholders on these issues and any other related considerations which should impact on the most appropriate shape and direction of the programme. On balance our current view is that the underlying objectives of the programme – to help accelerate the market introduction of lower carbon vehicles – are most likely to be met by seeking to focus the majority of programme expenditure on a relatively smaller number of larger scale procurements and by adopting a level of technological ambition which, while beyond that currently provided by the market (or likely to be offered in the near future) is sufficiently realistic and closer to market as to elicit a good response from the automotive industry – and in so doing to give the best possible prospects that these procurements will positively influence wider decisions on market introduction of lower carbon vehicles. At the same time, we can see the case for reserving a portion of programme funds for the demonstration of somewhat riskier and further from market technologies – though, given the funding available, this would need to be at relatively small scale.

3.10 We recognise that, to some extent the scale and spread of procurements within the programme is likely to be determined by the priorities and level of demand from public organisations that are keen to participate in the programme. Public sector organisations which have a clear commitment to greening of their vehicle fleets and are in a position to make a significant "forward commitment" in relation to their purchase of lower carbon vehicles will be strong candidates for participation in the scheme. Equally, many larger scale procurements may need to be developed in stages, with an initial smaller stage prior to a larger exercise.

3.11 We also recognise the wider innovation case and learning benefits that can be obtained from demonstrations of more radical and further from market technological options. Equally it should be noted in this context that work on the development and demonstration of single or very small numbers of prototype vehicles adopting more radical approaches may potentially be supported by other future Government initiatives such as the low carbon transport element of the Energy Technologies Institute and by future calls of the Innovation Platform – a new initiative supporting lower carbon vehicle R,D&D which is jointly funded by the DfT, the Technology Strategy Board and the Engineering and Physical Sciences Research Council.

Questions:

What is your view on the level of technological ambition that the procurement programme should adopt? – taking account of the above considerations. To what extent should the programme be focussed on specifications which are likely to be met by relatively closer to market technologies, or considerably more demanding specifications which would be likely to require more radical technology options?

What is your view on the scale of procurements which should be supported by the programme – taking account of the available initial budget and the considerations above?

4. Operation and implementation of the Programme

4.1 In considering how the programme might operate in practise, we have identified two broad potential models. These are outlined below, along with some discussion of their potential advantages and disadvantages and an indication of the Department's current thinking.

Option A – A “Classic Procurement” based approach

4.2 Under this approach, the DfT, or its contractual agent in managing the programme (see section 7 below) would work to identify and establish a low carbon vehicle procurement requirement within a public sector organisation, or a consortium of such organisations. A detailed specification setting out those requirements in terms of vehicle types, timescales, carbon and other environmental performance standards, wider technical and service/repair/maintenance requirements etc would be developed and this would then be subject to competitive tender. Subject to the satisfactory conclusion of the tender exercise, and the award of contracts to the successful bidder(s), the DfT or its managing agent would commit to meeting the additional costs of purchasing or leasing the lower carbon vehicles from the procurement programme funds. Once the supply of vehicles had begun, participating organisations would begin to be re-imbursed their additional costs from programme funds.

Option B – A Competitive call/grant based approach

4.3 Under this model, public sector organisations would bid to DfT or its managing agent for financial support for help with the additional costs of procuring lower carbon vehicles. In order for such bids to be assessed on a equal and comparable basis, such bids could be managed through a regular process of "competitive calls" for financial support, with bids assessed by relevant experts against a set of pre-determined criteria (which could include aspects such as carbon savings and environmental performance, value for money, plausibility of route to market for the vehicle technology in question, expectation of further forward commitment procurement opportunities etc) with supporting guidance provided for bidders on application conditions and criteria etc. Successful bidders under each call would be provided with a grant offer from the programme, subject to the successful delivery of the lower carbon vehicles in question.

Considerations

4.4 Our initial thinking suggests to us that Option A provides a more attractive approach to the development of the procurement programme – for the following reasons:

- it provides greater possibilities for developing a more strategic approach to the programme roll out – eg through focussing on key vehicle types, the development of realistic and viable specifications in consultation with stakeholders and through seeking to establish consortiums of purchasers to deliver economies of scale. A call-based programme could deliver a more dispersed, varied and un-predictable outcome in terms of the vehicle procurements supported – with a consequential risk of loss of impact in terms of the underlying objectives of the programme.

- a managed procurement process would provide greater certainty and transparency of value for money for Government – by establishing a firmer basis on which the additional costs of procuring and operating the lower carbon vehicles in question was established. For a call based programme it is less clear on what basis the level of funding provided by the programme would be determined. Would public sector organisations bid to the programme prior to conducting their vehicle procurements? – in which case the level of programme funding required could be hard to determine - or would they bid after having received firm financial proposals from vehicle providers? - in which case there could be a risk of wasted effort if the bid to the programme proved unsuccessful.
- a managed procurement process would be likely to provide greater assurance to Government that appropriate procurement, competition and other legal considerations had been met and that Government funding was not going to support projects which did not satisfy these requirements. It would also provide greater assurance that procurements were being developed on the basis of realistic specifications and contractual conditions – and were thus less likely to unravel once firm contracts were put in place.

4.5 It is recognised that Option A puts a greater onus on the Department and/or its managing agent in delivering the programme to develop a strong set of procurements, with viable specifications and to ensure that relevant procurement rules and any other legal requirements are satisfied. We are aware that this could be a relatively resource intensive activity and we are also aware that it will require clear commitment from participating public sector organisations to ensure success. An advantage of Option B is therefore the greater scope and flexibility it would leave to public sector organisations to develop their own procurement plans and specifications – and to bid in to their programme on that more open basis. However this is both an advantage and a risk for the Option B approach – including not only the risk that a disparate and non-strategic set of proposals came forward, but that there were insufficient high quality proposals to merit funding or meet the programme objectives.

4.6 While, for the above reasons, we consider that Option A is the more attractive, we remain open to views on this issue. In particular we would be interested in views as to whether there are any other viable models on which the programme could be developed, or any mechanisms through which the potential downsides of Option B could be satisfactorily addressed?

Questions

What approach do you think would be most effective for structuring the operation of the programme? Do you prefer Option A or B and on what grounds?

Are there approaches which could address the potential downsides of Option B?

Are there any other models by which the programme could be developed?

5. Procurement rules, legislative requirements and value for money

5.1 Irrespective of how the procurement programme is structured or operated – and whether Option A, or B or another variant is adopted – the programme will need to remain compliant with relevant procurement and state aid legislation. This framework comprises relevant European Directives as well as the EU Treaty principles of non-discrimination, equal treatment and transparency. It places a requirement on public sector organisations to conduct open competitive procurements for goods and services above minimum threshold levels – and to comply with the specific timing requirements laid down for different procurement procedures as set out in the European Directives.

5.2 These Directives seek to ensure that procurement processes are fair, open and transparent and that contracts are ultimately awarded to the bidders that most competitively meet the requirements and evaluation criteria set out in the tender exercise. In respect of procurements in this area, which will involve the procurement of relatively novel vehicle types to quite demanding specifications, there may well be benefit in utilising the "competitive dialogue" approach to procurement. This procurement approach can add some additional time to the overall timetable, but with the benefit that it allows scope for early and greater discussion with suppliers and innovators to determine how their solution meets the needs expressed in a tender and how it can be developed to the point of supply.

5.3 Wherever they apply, these requirements are legally binding on public procurers. A clear implication of their existence is that there is no possibility that public procurement exercises of this kind can either directly or indirectly seek to favour UK based or UK company solutions over others.

5.4 Activity under the programme will also need to be compatible with EU state aids rules. These rules seek to prevent the distortion of the EU market through the provision of Government funded assistance. To be classed as a state aid four criteria have to be met, namely: it is granted by the state or through state resources, it favours certain undertakings or production of certain goods, it distorts or threatens to distort competition, and it affects or has the potential to affect trade between EU member states. In developing a programme focussed on public sector procurements, a key state aid consideration is likely to be whether the public sector organisation in question is engaged in any economic or trading activities which involve providing a service or product in return for remuneration. Funding to public sector organisations involved in solely policy making, law enforcement or regulatory functions (which have no activities which are economic in nature and so would not be construed as being in competition with commercial organisations) is unlikely to involve any state aid issues. A programme of funding focussed on these organisations should not therefore require state aid notification to the European Commission. That said, the position of individual participant organisations would need to be assessed on a case by case basis to ensure that state aid was not involved.

5.5 While state aid and procurement requirements will apply equally whether Option A or B above is pursued, it is arguable that another advantage of option A is the greater control it would give the Department and/or its managing agent to ensure that procurements supported by the programme met the relevant legal and procurement criteria.

5.6 Value for money considerations also point to the need to ensure that financial support from the programme to public procurers is limited to the additional costs of procuring and operating lower carbon vehicles relative to the procurement of conventional "off the shelf" alternatives. In assessing and calculating these additional costs it will be necessary to take into account relevant factors including both capital (or leasing) costs, operational costs, any potential financial value attributable to carbon emissions saved, and re-sale/residual value of vehicles.

5.7 Contracts between the programme and participating public sector organisations will need to address how such additional costs are agreed and assessed. Particular challenges in this area are likely to involve how vehicle disposal/residual value issues are handled and what contractual arrangements need to be in place between procurers and suppliers in relation to vehicle disposal/onward sale or continuing operation. There are also issues around how to ensure that participating public sector organisations do not pay un-necessary or unjustifiable sums towards the product development work of suppliers and bidders to the programme. These considerations point to involving experts in the specification and procurement process whose role it to protect the programme (and thus taxpayers) interests in terms of value for money.

Questions

Views are invited on how best to handle vehicle disposal/residual value issues under the programme?

Views are invited on how best to ensure that value for money is maximised for the public sector?

6. Potential vehicle types, specifications and procurement volumes

6.1 The vehicle types to be procured – and the more detailed specifications which will support those procurements – will in part be determined by the overall objectives and strategic focus of the programme, including the level of technological ambition (discussed in more detail in section 3 above) – as well as the demand from and requirements of participating public sector organisations. The following sections discuss in more detail the vehicle types and technologies which might form part of the programme.

Lower carbon passenger cars

6.2 Passenger cars comprise the largest proportion of the public sector vehicle fleet, as well as remaining by some distance the largest source of carbon dioxide emissions from vehicles in the UK. As such they are an obvious potential focus for a public procurement initiative on lower carbon vehicles. However, given the large and very international nature of the passenger car market, there may be questions as to whether a public procurement initiative on lower carbon passenger cars – backed by limited initial funding of £20m - could plausibly be developed on a scale sufficient to have an impact on the market introduction plans of the automotive industry.

Additional scale could potentially be achieved by the development of broader consortiums, the involvement of other financiers or international partners – however these activities could pose their own challenges. Equally, smaller fleet demonstration scale initiatives might nonetheless be argued to provide valuable learning and innovation benefits which could impact positively on wider investment decisions in the car market.

6.3 Views are therefore invited on the case for focussing some of the procurement programme activities on mainstream passenger cars – for example with a procurement which might be focussed around a sub-100g CO₂/km mid-sized passenger car - and the scale of procurement necessary to have a plausible positive impact on the market commercialisation plans of car manufacturers in this area.

Lower carbon vans

6.4 At present virtually all mainstream vans sold commercially are diesels – and thus operate on relatively fuel efficient engines. However carbon emissions from this vehicle type are rising quite rapidly (driven by market growth in this vehicle segment) and fuel economy or carbon performance has thus far not been a major feature in the marketing or development of new commercial vans by the major manufacturers in this market. As such there is arguably an emerging market niche for lower carbon vans to meet the demands of public and private sector fleet operators with a desire for a lower carbon product. The scale of the van market – while substantial – is also significantly smaller than for passenger cars – and it is thus arguable that public procurement initiatives could play a more significant role in influencing decisions on the market introduction of new vehicle products.

6.5 In broad terms a public procurement initiative focussed on vans might seek to specify:

- A requirement for a lower carbon van, with carbon emissions specified at a certain percentage below the typical current market average for a van of comparable size and performance²
- A requirement for a zero, or significantly lower carbon van (based on tailpipe emissions) – for example in situations where planned usage cycles could be compatible with all electric vehicles or regular battery re-charging.

Views are invited on the case for supporting low carbon van procurements through the programme and the scale of procurement likely to be necessary to have a positive impact on the market introduction plans of van manufacturers.

Lower carbon buses

6.6 Lower carbon buses have been demonstrated in London through the EU CUTE programme, which involved a joint demonstration initiative with London and other

² Limited information is currently available on the carbon dioxide performance of existing commercial vans – and how this varies with load. Further work would need to be done to set out an appropriately demanding specification for a lower carbon van.

European cities demonstrating hydrogen fuel cell systems. Additionally, Transport for London is currently trialling hybrid bus systems and New York and a number of European cities are also demonstrating hybrid and alternatively fuelled buses. However on many occasions the public sector is not a direct procurer of buses and its influence in this area is achieved through wider contractual or service level arrangements.

6.7 Buses provide a visible route to the demonstration of lower carbon technologies and the much smaller scale of the commercial bus market means that it may be possible for public procurement to have a direct and significant influence on the market for commercial buses (though wider regulatory frameworks and other factors will continue to influence this as well). On the other hand the limited volumes and distinct nature of the bus market may mean that wider carbon reduction and technology roll out benefits from bus procurement may be more limited

Other vehicle types

6.8 Public procurement also encompasses some volumes of other vehicle types such as 4x4 vehicles with off-road capability, mini-buses and MPV's etc. Where there is sufficient demand these vehicle types may also be plausible candidates for a lower carbon vehicle procurement programme. Detailed specifications would need to be developed for each to ensure an appropriately demanding low carbon standard.

6.9 While Heavy Goods Vehicles are procured by the public sector this is in lower numbers and many are of relatively specialist vehicle types (eg ambulances, fire engines, MoD vehicles etc). The detailed specifications and requirements for these – and thus their potentially limited applicability to wider commercial vehicle markets – suggests they may not be particularly suitable candidates for a programme focussed on lower carbon objectives. However some specific opportunities in this area may nonetheless arise.

Technology based procurements

6.10 The above discussion has focussed on the vehicle types which might form part of the public procurement programme. In general, it is proposed that procurements of this kind would seek to remain as "technology neutral" as possible given the nature of the procurement being undertaken. Thus for example a lower carbon passenger car or van procurement need not specify a requirement for hybridisation, lightweighting or specific lower carbon engine technologies. Rather the specification would set out the requirements for the vehicle in terms of size, performance, range, tailpipe emissions, service and maintenance etc and allow bidders to propose the technological solution which they felt best met the requirements of the tender.

6.11 However there may be situations and occasions on which it would be appropriate to adopt a somewhat more technology prescriptive approach to a procurement. For example, were an element of the programme to be focussed on the demonstration of more radical and longer term technology options for carbon reduction, it may prove to be necessary or desirable for individual procurements to prescribe in more detail the nature of the technological solution being sought. Thus

some procurements for longer term options might be focussed on the demonstration of:

- plug-in hybrid vehicles for mainstream passenger usage
- hydrogen fuel cell technology

In such cases, in order to conduct a meaningful tender exercise, it could be necessary to specify in more detail the nature of the technological solution being sought – particularly as one of the objectives of such a procurement exercise may be to gain learning and innovation benefits from the trialing of the specific technologies in question.

6.12 Similarly support for demonstration of novel or second generation biofuels in fleets could be another candidate for the programme and – depending on the level of carbon savings specified and other conditions specified in the tender – could be considered as closer or further from market in terms of level of technological ambition. In general, even where a greater level of prescription is required in a tender, we would expect the objective to remain to keep any procurement specification as technologically open as plausible – so as to allow the widest possible participation in the tender and the avoidance of (by default) favouring a specific company's products or technological capabilities.

Vehicle specifications, conversions and innovation benefits

6.13 The above discussion highlights the desirability of developing more detailed technical specifications for lower carbon vehicles in a range of areas. These specifications, perhaps suitably modified to the meet demands of specific procurers, could form the basis for a range of procurements under the programme.

6.14 The DfT has begun some initial work in this area and will look to share information with relevant stakeholders and experts with the aim of developing outline vehicle specifications which strike the right balance between lower carbon ambition and technological viability.

6.15 A related issue in this area is the nature of the vehicles which may be delivered through the programme. Procurements of smaller scale with relatively demanding delivery timescales would most likely be delivered through conversions of existing vehicle types – these conversions might well be undertaken by companies separate from, and without the involvement of, the original automotive manufacturer. While such vehicle conversion exercises may well deliver some significant learning and innovation benefits, and in time help to influence wider vehicle manufacturer decisions on product roll out, it is arguable that greater innovation benefits could be realised by the development of larger procurements which deliver vehicles over longer timescales. Such longer timescales could allow for greater elements of design and production process refinement, greater participation of mainstream automotive manufacturers and thus a greater scope for innovation, learning and the achievement or identification of scope for economies of scale relevant to wider commercialisation decisions.

6.16 Views are invited on the vehicle types and technologies which should form the major focus of the procurement programme, given the limited funding available. In keeping with earlier discussions on the objectives of the programme, our initial thinking is that procurements should be focussed on those areas most likely to have a positive and significant impact on wider large scale commercial vehicle markets in the near-medium term. This would potentially argue for early activities under the programme to be focussed on the procurement of lower carbon vans (and possibly passenger cars) with perhaps some additional activity in the areas of off-road 4x4 vehicles, MPV's/mini-vans and fleets utilising biofuels with strong life cycle carbon reduction benefits. We are also inclined to seek to develop procurements which will allow the maximum scope for innovation benefits and involvement of automotive manufacturers – this probably argues for procurements with relatively significant lead times which run over a number of years. However we remain open to a range of options and, as noted above, procurements will of course also be influenced by the specific needs and interests of participating organisations. We are also interested in views on what would be a desirable length of time for different vehicle types to operate under the programme to deliver maximum value for money, learning and innovation benefits.

Questions

Views are invited on the vehicle types and specifications which should be highest priority and most suitable for public procurement activities – taking account of the issues outlined above, the limited funding available and any other relevant considerations?

For different vehicle types, what scale of public procurement is likely to be necessary to achieve significant economies of scale and have a meaningful positive impact in accelerating the wider market introduction of lower carbon vehicles?

Is the broad approach of "technology neutral" specifications favoured? Is it accepted that on some occasions there may be a stronger case for making some procurements more prescriptive in terms of the technology being procured?

How can procurements best be structured to ensure the maximum innovation benefits? Would procurements which deliver converted vehicles without the participation of the original manufacturer nonetheless offer innovation benefits? What length of time might we realistically expect or want vehicles to operate under the scheme in order to deliver maximum value for money as well as innovation and learning benefits?

7. Delivery and management of the programme

7.1 The day to day management and delivery of the procurement programme is likely to involve a range of project, procurement and financial management activities – as well as requiring ongoing involvement of experts with in-depth technological understanding in the area of lower carbon vehicles. While the DfT could potentially develop this capacity in-house or through selected consultancy support, our initial

thinking suggests that there may be a good case for contracting out the delivery and management of the programme, once decisions have been reached on the overall approach and focus of the programme. This case is strengthened by the likely need to offer public sector organisations a compelling "service offer" in terms of the assistance they may require to participate successfully in the programme – as opposed to adopting the simpler option of purchasing vehicles from the existing commercial market.

7.2 The precise responsibilities and functions of any programme management operation will need further consideration – and will in part depend on the model for the operation of the programme which is adopted. However they are likely to involve some or all of the following functions:

- promoting the existence of the programme to potential public procurers and to relevant stakeholder groups
- identifying procurement opportunities within the public sector and securing commitments to participate in the programme from individual organisations and consortiums.
- further developing and refining detailed and realistic vehicle specifications which meet the needs of the procuring organisations as well as the overall objectives of the programme
- overseeing and supporting public procurement exercises to ensure transparency, fairness and compliance with relevant legislation
- assistance to participating organisations in relation to the final negotiation of contracts.
- project monitoring (including arrangements to secure real world data from the operational fleets in question) and payment of financial support to participating organisations
- dissemination of results and wider marketing and publicity activities

7.3 Subject to the outcome of the current consultation exercise, the Department will continue developing this specification further with a likely view to commencing the process of appointing a programme manager for the procurement programme. We recognise that the Department would need to continue to work closely with any programme manager to oversee and shape the overall direction of the programme as well as providing high level support in terms of encouraging relevant public sector and stakeholder participation.

Questions

Do you consider that it would be sensible for the Department to seek to contract out the management and operation of the procurement programme?

Beyond those outlined above, are there any other key roles and functions that a programme manager would need to perform? What are the key skills and experience needed for a programme manager to perform these functions? Are there any other considerations which should impact on decisions in this area?

8. Timetable and next steps

8.1 We are seeking views and responses on the issues raised in this paper by Friday 14 September August. These will help inform the development and implementation of the programme as we go forward.

8.2 During the coming months we will also be holding further discussions with relevant stakeholders as well as meetings with a range of public sector organisations to assess their potential interest in participation in the scheme and to gain a better understanding of the key issues which are most relevant to their participation.

8.3 Following consideration of responses to this paper and the further information gained from other meetings and discussions held over this period, we expect to advise our Ministers in the early Autumn on the options for and best approach to developing the new programme. We would then make a further announcement on our approach to the programme and next steps. At this stage it is possible to indicate that further work on the programme over the remainder of this year is likely to involve:

- work to appoint a programme manager for the programme.
- commencement of detailed work with potential participant public sector organisations to establish in detail their vehicle needs and requirements and the scale and scope of potential procurement under the programme.

8.4 Based on this we would hope to be in a position to launch the first procurements under the programme by the beginning of the 2008/9 financial year. Procurements which abide by the timetables set out in the relevant EU Procurement Directives would take a minimum of three months to complete (from the launch of the invitation to tender to the award of the contract to the successful bidder) – and in many cases longer dependent on the size, complexity and nature of the procurement undertaken. The speed at which new lower carbon vehicles would then be developed and supplied will depend on the vehicle and timing specifications set out in the tender.

9. Summary and conclusions

9.1 Our objective in developing this new programme is to utilise public procurement to help accelerate the market introduction of lower carbon vehicles in the UK. An initial £20m has been allocated to the programme, with further funding dependent on demonstrating that a viable model for the programme can be developed which will have a meaningful positive impact on these objectives – alongside wider policy and regulatory measures.

9.2 Our initial thinking and discussions on the new programme suggests that our objectives may best be met by developing a programme which:

- supports the procurement of vehicles with carbon emissions which are lower than those of comparable vehicles widely available in existing commercial markets
- is predominantly focussed on seeking to develop a smaller number of larger scale procurements which will help accelerate the market introduction of technologies and vehicles which are relatively close to market and have realistic prospects for achieving wider commercialisation in the relatively near future. This objective may well need to be achieved in stages with smaller procurements prior to the commencement of larger exercises. A smaller proportion of programme funds might be reserved for supporting the demonstration of more radical longer term technology options.
- is focussed on vehicle types and sectors where the introduction of new lower carbon vehicles has the potential for significant positive impacts on our wider domestic and international carbon reduction objectives.
- maximises the opportunities for wider innovation and learning benefits from fleet procurements and demonstrations
- is compliant with relevant EU procurement and state aid legislation
- is managed on behalf of the Department by an external contractor/organisation on the basis of a broad contract covering the day to day management and operation of the programme and the provision of appropriate support to participating public sector organisations.

9.3 Before finalising our proposals for the new programme we are however keen to receive as many views and contributions as possible to the issues raised in this paper, as well as any other considerations relevant to the successful development of the programme. These will be considered carefully and taken into account in developing the shape of the programme as we move forward.

Department for Transport
July 2007