Title:	Impact Assessment (IA)
Street Works Lane Rental	**IA No:** DfT00090
Lead department or agency: Department for Transport	**Date:** 17/08/2011
Other departments or agencies:	**Stage:** Consultation
	Source of intervention: Domestic
	Type of measure: Secondary legislation
	Contact for enquiries: matt.tyler@dft.gsi.gov.uk

Summary: Intervention and Options

What is the problem under consideration? Why is government intervention necessary?

Street works (i.e. works by utility companies and others with apparatus in the street) are a significant cause of delay and disruption. On some estimates, street works contribute to congestion that costs some £4.3 billion a year, but these costs are borne by society rather than by those carrying out the works (i.e. they are "externalities"). Works promoters are currently incentivised to focus on their own costs (to maximise profit), but not these wider costs to society. Government intervention is needed to bring works promoters' incentives more closely into line with those of society at large, primarily in respect of those critical parts of local road networks where works impose the greatest negative externalities.

What are the policy objectives and the intended effects?

To reduce the disruption caused by works on critical parts of local road networks - i.e. the places where works have the greatest adverse impact. Carefully-designed lane rental schemes could provide a clear financial incentive for works promoters to manage their works in a less disruptive way, so reducing the costs currently incurred by road users (including businesses). In the first instance, the Government is interested to see the progress of a very small number of carefully-targeted pilot schemes, to inform future assessments of whether lane rental could usefully play a wider role. The proposed new regulations are necessary to enable any such schemes to go ahead.

What policy options have been considered, including any alternatives to regulation? Please justify preferred option (further details in Evidence Base)

Proposals for lane rental are part of a package of measures to reduce the impact of street works, which includes non-regulatory measures. For the most critical parts of local road networks, additional regulatory powers could enable highway authorities to secure significant reductions in disruption caused by works. Specific options considered are: 1. Legislate to allow pilots of lane rental schemes targeted on critical parts of local road networks. 2. Local authorities make enhanced use of existing permit schemes on traffic-sensitive streets, supported by higher penalties for certain breaches of permit conditions. 3. A non-regulatory approach based on voluntary codes of practice.

The preferred option is to allow a small number of local "pilots" along the lines of Option 1, which appears to offer a better balance between costs and benefits than Option 2 (particularly for the business sector).

Will the policy be reviewed? It will be reviewed. **If applicable, set review date:** 4/2017	
What is the basis for this review? Sunset clause. **If applicable, set sunset clause date:** 1/2018	
Are there arrangements in place that will allow a systematic collection of monitoring information for future policy review?	Yes

Ministerial Sign-off For consultation stage Impact Assessments:

I have read the Impact Assessment and I am satisfied that, given the available evidence, it represents a reasonable view of the likely costs, benefits and impact of the leading options.

Signed by the responsible Minister: .... Date: ....

Summary: Analysis and Evidence

Policy Option 1

Description:

Legislate to allow lane rental schemes focused specifically on key strategic parts of local road networks

Price Base Year 2012	PV Base Year 2012	Time Period Years 5	Net Benefit (Present Value (PV)) (£m)		
			Low: 0	**High:** £312m	**Best Estimate: £156m**

COSTS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	0		0	**£0**
High	£1m		£22.3m	**£102m**
Best Estimate	£0.5m		£11.2m	**£51m**

Description and scale of key monetised costs by 'main affected groups'

Costs largely fall on utility companies and other street works undertakers (and their contractors), either through lane rental charges incurred or through costs of applying less disruptive working practices in order to avoid exposure to charges. To the extent that costs cannot be avoided by utility companies, they are likely to be reflected in utility prices paid by consumers. Local authorities will incur some costs in administering schemes.

Other key non-monetised costs by 'main affected groups'

Administration costs to street works undertakers have not yet been monetised, but we expect to gather evidence on these through the consultation process and as local authorities develop and refine their specific scheme proposals. There is some potential for increased noise outisde of core working hours, as a result of some works being shifted to periods of less heavy traffic.

BENEFITS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low	£0		£0	**£0**
High	£0		£92m	**£414m**
Best Estimate	£0		£46m	**£207m**

Description and scale of key monetised benefits by 'main affected groups'

Road users (including business users) benefit from reduced congestion. Highway authorities will benefit from the lane rental revenues that accrue to them (which are a transfer from street works undertakers). Environmental benefits are also anticipated as works are carried out more quickly and with less disruption to traffic.

Other key non-monetised benefits by 'main affected groups'

Key assumptions/sensitivities/risks | **Discount rate (%)** | 3.5

Impacts will depend crucially on how many highway authorities are granted approval to implement lane rental, and how their schemes are designed. Cost-benefit analysis in this impact assessment is based on initial modelling work carried out by Transport for London on the potential design and impacts of a scheme targeted on London's most critical road segments and pinch-points. The "high" estimate is based on such a scheme being implemented alongside a small number of schemes in other major urban areas, reflecting the Government's clear signal that no more than a few "pilot" schemes are envisaged.

Direct impact on business (Equivalent Annual) £m):			**In scope of OIOO?**	**Measure qualifies as**
Costs: £10.4m	**Benefits:** £16.0m	**Net:** -£5.6m	Yes	IN but scores as '0'

Enforcement, Implementation and Wider Impacts

<table>
<tr><td colspan="3">What is the geographic coverage of the policy/option?</td><td colspan="3">England</td></tr>
<tr><td colspan="3">From what date will the policy be implemented?</td><td colspan="3">06/04/2012</td></tr>
<tr><td colspan="3">Which organisation(s) will enforce the policy?</td><td colspan="3">Highway authorities</td></tr>
<tr><td colspan="3">What is the annual change in enforcement cost (£m)?</td><td colspan="3">£0-1m</td></tr>
<tr><td colspan="3">Does enforcement comply with Hampton principles?</td><td colspan="3">Yes</td></tr>
<tr><td colspan="3">Does implementation go beyond minimum EU requirements?</td><td colspan="3">N/A</td></tr>
<tr><td colspan="3">What is the CO_2 equivalent change in greenhouse gas emissions?
(Million tonnes CO_2 equivalent)</td><td colspan="2">Traded:
n/a</td><td>Non-traded:
n/a</td></tr>
<tr><td colspan="3">Does the proposal have an impact on competition?</td><td colspan="3">No</td></tr>
<tr><td colspan="3">What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?</td><td colspan="2">Costs:
nil</td><td>Benefits:
nil</td></tr>
<tr><td>Distribution of annual cost (%) by organisation size
(excl. Transition) (Constant Price)</td><td>Micro
n/a</td><td>< 20
n/a</td><td>Small
n/a</td><td>Medium
n/a</td><td>Large
n/a</td></tr>
<tr><td>Are any of these organisations exempt?</td><td>Yes/No</td><td>No</td><td>No</td><td>No</td><td>No</td></tr>
</table>

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

Please note this checklist is not intended to list each and every statutory consideration that departments should take into account when deciding which policy option to follow. It is the responsibility of departments to make sure that their duties are complied with.

Does your policy option/proposal have an impact on…?	Impact	Page ref within IA
Statutory equality duties[1] Statutory Equality Duties Impact Test guidance	No	22
Economic impacts		
Competition Competition Assessment Impact Test guidance	No	22
Small firms Small Firms Impact Test guidance	Yes	22
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	Yes	22
Wider environmental issues Wider Environmental Issues Impact Test guidance	Yes	23
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	No	23
Human rights Human Rights Impact Test guidance	No	23
Justice system Justice Impact Test guidance	No	23
Rural proofing Rural Proofing Impact Test guidance	No	23
Sustainable development Sustainable Development Impact Test guidance	No	23

[1] Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Summary: Analysis and Evidence

Policy Option 2

Description:

Enhanced use of permit schemes, supported by higher penalties for certain breaches

Price Base Year 2012	PV Base Year 2012	Time Period Years 5	Net Benefit (Present Value (PV)) (£m)		
			Low: £0	**High:** £448m	**Best Estimate: £224m**

COSTS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Cost** (Present Value)
Low	0		0	**0**
High	£8.6m		£135m	**£620m**
Best Estimate	£4.3m		£68m	**£310m**

Description and scale of key monetised costs by 'main affected groups'

Costs largely fall on utility companies and other street works undertakers (and their contractors), either through lane rental charges incurred or through costs of applying less disruptive working practices in order to avoid exposure to charges. To the extent that costs cannot be avoided by utility companies, they are likely to be reflected in utility prices paid by consumers. Local authorities will incur costs in administering schemes.

Other key non-monetised costs by 'main affected groups'

Administration costs to street works undertakers have not yet been monetised, but for reasons set out in the evidence base these are likely to be materially greater than Option 1. There is some potential for increased noise outisde of core working hours, as a result of some works being shifted to periods of less heavy traffic.

BENEFITS (£m)	**Total Transition** (Constant Price)	Years	**Average Annual** (excl. Transition) (Constant Price)	**Total Benefit** (Present Value)
Low	0		0	**0**
High	0		£237m	**£1,067m**
Best Estimate	0		£118m	**£534m**

Description and scale of key monetised benefits by 'main affected groups'

Road users (including business users) benefit from reduced congestion. The application of fixed penalty charge revenues by highway authorities would generate further benefits, with the beneficiaries depending on the use to which those revenues were put. Environmental benefits are also anticipated as works are carried out more quickly and with less disruption to traffic.

Other key non-monetised benefits by 'main affected groups'

Key assumptions/sensitivities/risks | **Discount rate (%)** | 3.5

Impacts will depend crucially on the extent of take-up by highway authorities. Cost-benefit analysis in this impact assessment is based on initial modelling work carried out by Transport for London on the potential design and impacts of a scheme targeted on London's traffic-sensitive streets. The "high" estimate is based on such a scheme being implemented alongside a small number of schemes in other major urban areas.

Direct impact on business (Equivalent Annual) £m):			**In scope of OIOO?**	**Measure qualifies as**
Costs: £61.3m	**Benefits:** £33.4m	**Net:** £27.9m	No	NA

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?			England		
From what date will the policy be implemented?			n/a		
Which organisation(s) will enforce the policy?			Highway authorities		
What is the annual change in enforcement cost (£m)?			<£6.4m		
Does enforcement comply with Hampton principles?			Yes		
Does implementation go beyond minimum EU requirements?			N/A		
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)			**Traded:** n/a		**Non-traded:** n/a
Does the proposal have an impact on competition?			No		
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?			**Costs:** nil		**Benefits:** nil
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	**Micro** n/a	**< 20** n/a	**Small** n/a	**Medium** n/a	**Large** n/a
Are any of these organisations exempt?	Yes/No	No	No	No	No

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

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Economic impacts		
Competition Competition Assessment Impact Test guidance	No	22
Small firms Small Firms Impact Test guidance	Yes	22
Environmental impacts		
Greenhouse gas assessment Greenhouse Gas Assessment Impact Test guidance	Yes	22
Wider environmental issues Wider Environmental Issues Impact Test guidance	Yes	23
Social impacts		
Health and well-being Health and Well-being Impact Test guidance	No	23
Human rights Human Rights Impact Test guidance	No	23
Justice system Justice Impact Test guidance	No	23
Rural proofing Rural Proofing Impact Test guidance	No	23
Sustainable development Sustainable Development Impact Test guidance	No	23

[1] Public bodies including Whitehall departments are required to consider the impact of their policies and measures on race, disability and gender. It is intended to extend this consideration requirement under the Equality Act 2010 to cover age, sexual orientation, religion or belief and gender reassignment from April 2011 (to Great Britain only). The Toolkit provides advice on statutory equality duties for public authorities with a remit in Northern Ireland.

Summary: Analysis and Evidence

Policy Option 3

Description:

Non-regulatory initiatives

Price Base Year n/a	PV Base Year n/a	Time Period Years n/a	Net Benefit (Present Value (PV)) (£m) Low: Optional	High: Optional	Best Estimate: n/a

COSTS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Cost (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate	n/a		n/a	**n/a**

Description and scale of key monetised costs by 'main affected groups'

None. There is no reliable basis on which to monetise the impacts of the non-regulatory measures described in the Evidence Base.

Other key non-monetised costs by 'main affected groups'

Immediate costs include costs (to street works undertakers) of preparing and disseminating best practice guidance; costs (to local authorities and their systems developers) of developing systems to generate data to populate a 'performance scorecard'; and costs (to undertakers and authorities) of deciding whether to participate in the Code of Conduct. But benefits will arise only to the extent that undertakers choose to invest in behavioural changes in response to these initiatives.

BENEFITS (£m)	Total Transition (Constant Price)	Years	Average Annual (excl. Transition) (Constant Price)	Total Benefit (Present Value)
Low	Optional		Optional	**Optional**
High	Optional		Optional	**Optional**
Best Estimate	n/a		n/a	**n/a**

Description and scale of key monetised benefits by 'main affected groups'

None. There is no reliable basis on which to estimate the extent to which street works undertakers will choose to adopt different working practices in response to non-regulatory initiatives.

Other key non-monetised benefits by 'main affected groups'

Benefits might include: improved performance on matters covered by the 'scorecard' and the 'Code of Conduct' benefiting road users (eg fewer overrunning works; less-disruptive working practices; better-quality highway reinstatements); local communities better informed about street works in their area (as a result of wider adoption of good practice).

Key assumptions/sensitivities/risks | **Discount rate (%)** n/a

Costs and benefits involved in these initiatives will depend crucially on the extent to which street works undertakers and local authorities choose to implement behavioural changes as a result of these non-regulatory measures. There is no reliable basis on which to estimate the extent of behavioural change in advance.

Direct impact on business (Equivalent Annual) £m):			In scope of OIOO?	Measure qualifies as
Costs: n/a	Benefits: n/a	Net: n/a	No	NA

Enforcement, Implementation and Wider Impacts

What is the geographic coverage of the policy/option?	England				
From what date will the policy be implemented?	01/01/2011				
Which organisation(s) will enforce the policy?	n/a				
What is the annual change in enforcement cost (£m)?	n/a				
Does enforcement comply with Hampton principles?	Yes/No				
Does implementation go beyond minimum EU requirements?	N/A				
What is the CO_2 equivalent change in greenhouse gas emissions? (Million tonnes CO_2 equivalent)	**Traded:** n/a	**Non-traded:** n/a			
Does the proposal have an impact on competition?	No				
What proportion (%) of Total PV costs/benefits is directly attributable to primary legislation, if applicable?	**Costs:** 0	**Benefits:** 0			
Distribution of annual cost (%) by organisation size (excl. Transition) (Constant Price)	**Micro** n/a	**< 20** n/a	**Small** n/a	**Medium** n/a	**Large** n/a
Are any of these organisations exempt?	No	No	No	No	No

Specific Impact Tests: Checklist

Set out in the table below where information on any SITs undertaken as part of the analysis of the policy options can be found in the evidence base. For guidance on how to complete each test, double-click on the link for the guidance provided by the relevant department.

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Evidence Base (for summary sheets) – Notes

Use this space to set out the relevant references, evidence, analysis and detailed narrative from which you have generated your policy options or proposal. Please fill in **References** section.

References

Include the links to relevant legislation and publications, such as public impact assessments of earlier stages (e.g. Consultation, Final, Enactment) and those of the matching IN or OUTs measures.

No.	Legislation or publication
1	New Roads and Street Works Act 1991, section 74A
2	<Title of consultation document accompanying this impact assessment>
3	
4	

+ Add another row

Evidence Base

Ensure that the information in this section provides clear evidence of the information provided in the summary pages of this form (recommended maximum of 30 pages). Complete the **Annual profile of monetised costs and benefits** (transition and recurring) below over the life of the preferred policy (use the spreadsheet attached if the period is longer than 10 years).

The spreadsheet also contains an emission changes table that you will need to fill in if your measure has an impact on greenhouse gas emissions.

Annual profile of monetised costs and benefits* - (£m) constant prices

	Y_0	Y_1	Y_2	Y_3	Y_4	Y_5	Y_6	Y_7	Y_8	Y_9
Transition costs	0.5	0	0	0	0	0				
Annual recurring cost	0	11.75	11.75	10.75	10.75	10.75				
Total annual costs	0.5	11.75	11.75	10.75	10.75	10.75				
Transition benefits	0	0	0	0	0	0				
Annual recurring benefits	0	40	40	50	50	50				
Total annual benefits	0	40	40	50	50	50				

* For non-monetised benefits please see summary pages and main evidence base section

Microsoft Office Excel Worksheet

Evidence Base (for summary sheets)

Background

Works in the street are necessary in order to provide and maintain essential services and transport networks on which we all depend. However, these works also cause significant disruption, imposing substantial costs on individuals and on the economy – these costs are externalities borne by society at large, not by the works promoter. On some estimates, street works by utilities and others with apparatus in the street contribute to congestion delays that cost up to £4.3 billion a year *(source: Estimation of the Cost of Delay from Utilities' Street Works, Halcrow Group Ltd, June 2005)*. Analysis presented by Transport for London (TfL) suggests that the costs of road works disruption on streets for which they are responsible (roughly 5% of the total London road network) amount to some £300m a year. For works taking place within TfL's Congestion Management Areas[1] at traffic-sensitive times, TfL analysis suggests that the average disruption cost is in the region of £700 per hour; for the most disruptive emergency works, this figure is likely to exceed £5,000 per hour.

Permit schemes under Part 3 of the Traffic Management Act 2004 are one tool by which highway authorities can play a stronger role in managing and coordinating the works carried out on their streets. Under a permit scheme, works promoters must obtain a permit from the relevant highway authority for any works they propose to carry out. Permits may be issued with conditions attached, placing restrictions on specific aspects of how the works may be carried out. Permit schemes are operational in much of London, Kent and Northamptonshire, and early indications are that they are helping to reduce disruption. Authorities operating permit schemes are required to carry out a proper evaluation of their schemes based on the evidence from their first year of operation; in the case of London and Kent, these evaluations are due later this year, while Northamptonshire's should follow in 2012.

Section 74A of the New Roads and Street Works Act 1991 allows a highway authority to apply to the Secretary of State for Transport to operate a lane rental scheme on its network. A lane rental scheme would require street works undertakers to pay a charge for each day their works occupy the road network. It is for individual highway authorities – not central government – to develop and bring forward proposals for such schemes. Under Regulations commenced in December 2001, pilot lane rental schemes were introduced in the London Borough of Camden (including Transport for London streets) and Middlesbrough in April 2002. These pilot schemes operated on all roads in the scheme areas, but following their conclusion no further schemes have been introduced.[2] The original scheme orders have since been revoked and the 2001 Regulations are no longer operable.

There are likely to have been a number of reasons why the pilot schemes were insufficiently successful to encourage further application of the lane rental model. The Government believes it is reasonable to infer that the charge rates were insufficiently high to provide the intended incentive for street works undertakers and others to reduce the duration of their works, but also considers that the pilot scheme design provided insufficient opportunity for undertakers to reduce their exposure to charges by changing behaviour in ways other than merely reducing durations. For example, there will be scope to reduce disruption in some cases by avoiding works at peak hours, with the highway being reopened to traffic at those times.

It is recognised that there is significant uncertainty surrounding the likely costs and benefits of lane rental schemes, which will depend crucially on the design of individual schemes. Accordingly, the Government intends that no more than a very small number of "pilot" schemes under the new legislation should be allowed to go ahead in the first instance. Evidence from the evaluation of these pilot schemes would inform future decisions on whether or not to allow further lane rental schemes to be implemented. Consistent with this view, it is proposed that a "sunset clause" should be included in the regulations – i.e. a review of lane rental would be carried out by early 2017, with lane rental regulations (and by implication any individual schemes) ceasing to operate unless a decision were taken to extend their operation in light of the review.

[1] The parts of TfL's network where works cause the greatest disruption.

[2] Halcrow Group was commissioned to report on the lane rental pilots.

Options considered

Regulatory options

While street works can cause disruption and inconvenience wherever they take place, the greatest costs are associated with works a small proportion of the road network – typically the most heavily-trafficked streets and the specific pinch-points that constrain the overall capacity of the wider road network (eg junctions and road narrowings). For example, the Transport for London road network comprises roughly 5% of London's total road length, but accounts for some £300m[3] of the estimated £750m[4] annual economic and social costs of road works across London. Further regulatory intervention is therefore judged to be necessary, but specifically targeted on the most critical parts of the network.

Two broad regulatory approaches have been identified:

Option 1: legislating to allow highway authorities to apply lane rental charging schemes to their most critical streets (i.e. an approach based on financial incentives)

Option 2: highway authorities make enhanced use of permit conditions to impose less disruptive working practices on works promoters, supported by a substantial increase in penalties for contravening such permit conditions (i.e. an approach based on proactive regulation by highway authorities of utilities' and other undertakers' working practices)

Option 1 – financial incentives (ie lane rental)

The underlying case for government intervention is that works in the highway impose significant negative externalities – primarily congestion, but also environmental. A charging scheme, with charges reflecting these external costs, should bring the incentives facing private companies more closely into line with those of society as a whole. This in turn would encourage greater investment by works promoters in less disruptive technologies and working practices, and hence reduced congestion. (This argument rests on the reasonable assumption that utilities and other private-sector works promoters will seek to maximise overall profit: i.e. it is worth spending up to £1 on developing and implementing less disruptive working practices, in order to reduce lane rental charge liability by £1.)

At its simplest, a scheme could involve the application of daily charges to all works, with charge levels set at a level that aims to reflect the negative externalities imposed by works. Such a scheme should encourage works promoters to reduce the durations of their works, up to the point where the cost of a further day's reduction equals or exceeds the daily charge.

However, this approach would fail to reflect the reality that the external costs of works will often vary substantially according to the day of the week (weekdays vs. weekends), the time of day (rush-hour vs. off-peak times) and even the time of year (school holidays vs. other times). So in addition to reducing overall works durations, a more sophisticated charging scheme could encourage works promoters to carry out works at less disruptive times. This could be achieved by offering discounts or exemptions where works are executed at less disruptive times, with the highway being reopened to traffic at peak periods. This is becoming more practicable thanks to modern technologies such as "plating" (where metal plates are used to cover excavations securely so that traffic can pass over them).

Charging per lane occupied would add a further dimension to a charging scheme, as it would encourage works promoters to minimise the extent of their physical occupation of the carriageway.

Regardless of the detailed design of individual schemes, a key feature of an incentive-based approach is that it should avoid the need for highway authorities to be prescriptive about the particular technologies or working practices that works promoters should use in particular circumstances. Instead, it leaves works promoters free to adopt whichever technologies and working practices enable them to reduce disruption in the most cost-effective way.

Option 2 – enhanced use of permit schemes

An alternative to financial incentives would be for authorities to use permit schemes to prescribe in more detail the disruption-reducing behaviours that they expect works promoters to apply. In many cases, greater use of permit conditions could be made to prescribe times and days at which the road must be reopened to traffic, and to limit the extent of physical occupation of the highway. Such an approach

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[3] Source: Transport for London internal analysis.

[4] Source: *Road Sense: Balancing the Costs and Benefits of Road Works,* London First, 2010 (based on TfL analysis).

would be based on an existing regulatory tool – the permit scheme – and could potentially be implemented more quickly. However, permit conditions are absolute: once applied to the permit, the works promoter is legally obliged to adhere to them. So each time it applied conditions of this nature, the authority would need to be satisfied that it was reasonably practicable for the works promoter to adhere to them. This means that, compared to lane rental, it would require a much more proactive, hands-on approach by the highway authority – and accordingly it would be substantially more resource-intensive than lane rental. In practice it is likely that there would be significant dispute between authorities and works undertakers about what conditions are reasonable in individual cases.

If permit schemes were to be used more widely in this way, it is likely that the sanction for breach of permit conditions about timing of works would need to be increased substantially. The current level of fixed penalty notice, at £120 (or £80 if paid promptly), is unlikely to act as an adequate deterrent. For the purposes of this impact assessment, the analysis of this option assumes the fixed penalty for breach of timing-related permit conditions were increased to £750 (or £500 if paid promptly). (£750 is the maximum possible under existing primary legislation; a discounted rate of £500 would preserve the existing one-third reduction for prompt payment.)

The only action needed by central government to enable permit authorities to implement Option 2 would be to legislate to increase the fixed penalty charges for certain breaches of permit conditions. Accordingly, this option would be outside the scope of the "one in, one out" rules – increases in existing penalties are excluded from those rules.

Non-regulatory options (Option 3)

Non-regulatory options have an important role to play in securing improvements in the way street works are managed and coordinated. Indeed, the Government is already supporting a number of sector-led initiatives, which include measures aimed at encouraging:

- wider identification, dissemination and adoption of best practice;
- more systematic and consistent monitoring of performance in the street works sector, to enable highway authorities and street works undertakers to work together to identify existing strengths and areas for future improvements; and
- participation in a non-statutory Code of Conduct, which first operated in London but is now being rolled out more widely. This Code includes commitments aimed at delivering better coordination and management of works, with the aim of reducing disruption caused.

Option 1: assessment of costs and benefits

Option 1 - costs

The principal costs arising from any lane rental scheme would be the **costs to utility companies and others undertaking street works**. Lane rental schemes will not remove the need for essential works to maintain and upgrade utility infrastructure and other apparatus in the street – these works will continue to take place. But under the proposed new arrangements, schemes would need to provide utility companies and other street works undertakers with real opportunities to reduce their exposure to charges by carrying out their works in a less disruptive way.

Accordingly, it is envisaged that there would be two main elements to the costs incurred by undertakers: the costs of the lane rental charges themselves (in situations where works cannot be made less disruptive) and the costs of behavioural change (in situations where they can). It will make economic sense to adopt behavioural change where the costs of doing so are lower than the costs of the lane rental charge being avoided.

It is recognised that undertakers would seek to pass these additional costs on to their consumers in the prices they charge. Following discussion with the regulators, the Government understands that, for utilities that are subject to price regulation, the regulators would take account of lane rental costs when setting regulated prices only to the extent that the costs cannot be avoided by a utility company acting competently and efficiently. This should not dilute the incentive for undertakers to reduce disruption. This is because regulatory price caps are set in advance, based on the expected costs incurred by a utility acting competently and efficiently. Once a price cap is fixed, those subject to the cap would still have every incentive to reduce their exposure to lane rental charges (so as to maximise profit). It cannot be assumed that actual lane rental costs incurred would be passed through from regulated utilities to consumers 'pound for pound'. The Government will be discussing these issues further with the regulators in due course, with a view to assessing more precisely the likely extent of cost pass-through, and the regulators' comments are invited as part of the consultation process.

The other main cost would be the administrative costs for highway authorities and street works undertakers. Administrative costs to undertakers are not monetised in this impact assessment, and will depend heavily on whether scheme design requires them to provide any additional information over and above that already supplied through existing notices that undertakers give to highway authorities. Regardless of that, there will be some cost in administering the payment of charges, and undertakers are likely to wish to check that authorities' invoices are indeed valid. However, administrative costs to undertakers are likely to be - lower than those incurred by highway authorities (because it is assumed that highway authorities, not utilities and other street works undertakers, will be responsible for monitoring and enforcement). But views on the possible scale of such costs are invited as part of the consultation, which should inform estimates to be included in future versions of this impact assessment.

Depending on scheme design, stronger incentives to complete works at night or at weekends could have adverse noise-related impacts for local residents. Highway authorities would need to work closely with local environmental health departments to ensure that scheme design does not ignore these considerations.

Option 1 – benefits

The principal benefits arising from lane rental schemes would be:

- **reductions in congestion delay and journey time uncertainty for road users** where street works are carried out in a less disruptive way. This would benefit both businesses and private individuals;
- **revenues accruing to highway authorities**. The proposed regulations would require the revenue stream generated from lane rental to be applied to measures that will help to reduce the disruption caused by future works. Such measures would be expected to deliver further benefits to street works undertakers and road users;
- **potential environmental benefits**. By reducing the congestion arising at street works sites, lane rental has the potential to reduce road transport-related emissions – particularly local air quality pollution that is exacerbated by stationary or slow, stop-start traffic.

Option 1 – summary of monetised costs and benefits

The costs and benefits of lane rental will depend crucially on scheme design, and on the specifics of the local road networks to which they are applied. They will therefore depend on decisions that would be taken by local authorities when designing their scheme proposals.

At this stage, only a single highway authority – Transport for London (TfL) – is known to have made any significant progress in analysing the potential impacts of lane rental schemes. Accordingly, the monetised costs and benefits in this impact assessment are based on the initial analysis that TfL have presented to the Department. In providing the conclusions of their analysis, TfL have emphasised that their figures represent current best estimates, which are likely to be refined in the light of further scheme development work and modelling. Their analysis is based on an indicative scheme whose key features include:

- lane rental charges being applied to around half of TfL's road network (ie roughly 2½% of the total London road network);
- charge-free periods that provide substantial opportunity for undertakers to avoid charges by carrying out their works in less disruptive ways;
- charge levels that can be justified by reference to the costs of congestion and other externalities arising from works, with a maximum daily charge of £2,500 per lane occupied.

TfL's analysis also assumes that significant progress will be made in developing and applying new, less-disruptive techniques by the third year of any scheme. This is assumed to lead to increased scope to work in less disruptive ways in years 3 to 5 – so, in those years, undertakers are able to reduce their exposure to lane rental charges by increasing their expenditure on less disruptive working practices. There are two justifications for assuming that technical progress will be made:

- first, the proposed Regulations would require lane rental revenues to be applied for purposes intended to reduce the disruption caused by future works. This is likely to include research and development into new, disruption-saving technologies that could help to reduce disruption. To kick-start this process, TfL and the Department for Transport are jointly funding a research project investigating the potential for greater use of plating, and new temporary and permanent reinstatement techniques. This is due to report in the latter half of 2012.

- secondly, lane rental charging should, of itself, provide an incentive for the street works sector to invest in the development of such techniques.

TfL's analysis draws on several sources of detailed data about their road network. For example, congestion data from the London Congestion Analysis Project (LCAP)[5] has informed a detailed analysis of which road segments and pinch-points are most sensitive to disruption caused by works, and the cost-benefit analysis assumes that only these most sensitive parts of the network would be subject to lane rental charging.

TfL's estimates of the likely costs of lane rental on these parts of the network draw heavily on its street works register, which provides detailed information about the number, duration, location and other features of works that have taken place on its road network in recent years. Alongside LCAP data, TfL's monetisation of benefits also draws on data from its Evaluation Framework, which contains a range of location-specific data including traffic flows and modal composition of traffic (i.e. private car, bus, commercial goods vehicle, etc.) A model of behaviour change is then used to predict the extent to which works promoters will shorten works durations or manage their works to avoid the most disruptive times. It takes into account factors such as the trench width, the level of lane rental charges and enforcement, and the local population density exposed to the noise of night works (which may constrain the scope for overnight working).

Although based on rich data-sets, TfL's analysis remains subject to significant uncertainties, for example regarding the extent of undertakers' behavioural response to the proposed charges. It can be expected to evolve as TfL continue their work to develop the most cost-effective scheme proposal. But it is the best currently-available indicator of the likely scale of, and balance between, costs and benefits that might arise from real-world lane rental schemes under the proposed new Regulations. It is expected that further analysis will be available to inform the final version of this impact assessment.

Table 1 below summarises the key findings to date from unpublished analysis by TfL, presenting indicative estimates of the broad scale of costs and benefits that might arise from the scheme described above. The appraisal in this impact assessment is based on a five-year scheme life, consistent with the Government's principle of "sunset clauses".

TABLE 1 – indicative costs and benefits from TfL's analysis

£ million	Year						PV
	0	1	2	3	4	5	
Costs							
Lane rental charges paid by undertakers	0	8	8	5	5	5	28.3
Costs of behaviour change by undertakers	0	3	3	5	5	5	18.8
Scheme admin costs for highway authority	0.5	0.75	0.75	0.75	0.75	0.75	3.9
TOTAL COSTS	*0.5*	*11.75*	*11.75*	*10.75*	*10.75*	*10.75*	*50.9*
Benefits							
Reduction in negative externalities	0	32	32	45	45	45	178.5
…of which reduction in delay costs[1]	*0*	*28.8*	*28.8*	*40.5*	*40.5*	*40.5*	*160.6*
…of which reduction in delay costs to businesses[2]	*0*	*13*	*13*	*18.2*	*18.2*	*18.2*	*72.3*
Lane rental revenue accruing to local authority	0	8	8	5	5	5	28.3
TOTAL BENEFITS	*0*	*40*	*40*	*50*	*50*	*50*	*206.8*
Net benefit to society	**-0.5**	**28.25**	**28.25**	**39.25**	**39.25**	**39.25**	**155.8**
Impacts on businesses							
Benefits to general business community[3]	0	13	13	18.2	18.2	18.2	72.3
Costs to street works undertakers[4]	0	11	11	10	10	10	47.1
Net benefit to business	**0**	**2**	**2**	**8.2**	**8.2**	**8.2**	**25.2**

Notes overleaf.

[5] This project uses automatic number-plate recognition (ANPR) technology at a large number of fixed sites across the TfL road network to derive detailed data about journey times and congestion delay.

Notes to Table 1:
[1] 90% of the total reduction in negative externalities is assumed to be congestion-related – the remainder being environmental and any other externalities. Analysis is based on value of time data published in DfT's Transport Analysis Guidance (www.dft.gov.uk/webtag)
[2] Assuming 45% of the congestion saving accrues to business – informed by the Department for Transport's National Transport Model and Webtag guidance.
[3] Assuming no additional benefits to business over and above the congestion cost saving identified above. The application of lane rental revenues by the highway authority is expected to result in some further benefits to street works undertakers (where R&D leads to the development and application of new cost-saving techniques) and to the wider business community (as a result of those techniques leading to further congestion savings in future). The latter benefit is implicitly monetised within the level of congestion cost reduction modelled in years 3 to 5, but the former benefit is not monetised here.
[4] Lane rental charges incurred plus costs of behaviour change.

For the summary sheet at the front of this impact assessment, the "low" estimates of costs and benefits assume that no scheme proposals are ever approved by the Secretary of State – i.e. no costs or benefits ever arise under the Regulations. This would be the outcome if no authority chooses to submit proposals, or if any proposals submitted fail to secure the Secretary of State's approval.

The "high" estimates assume that schemes are implemented on critical streets in London and a small number of other major urban areas. Given that the costs of congestion in London are substantially greater than elsewhere, it is assumed that lane rental schemes in other cities would be significantly smaller than in London. The "high" estimates are consistent with a TfL scheme being implemented alongside four other schemes, with each of those other schemes being a quarter of the scale of TfL's – i.e. the "high" estimates are derived simply by doubling TfL's cost and benefit estimates. It is acknowledged that this is a fairly arbitrary assumption, but there is at present no robust basis on which to assess the likely future appetite for schemes. However, the assumption is judged to be broadly consistent with the upper limits of the Government's aspirations regarding the overall scale and scope of lane rental pilot schemes.

For simplicity, the "best estimate" is calculated as the mid-point of the "low" and "high" estimates. It is important to emphasise that, although the resulting "best estimate" happens to be equivalent to the numbers presented in Table 1, this does not in any way prejudge the Secretary of State's future consideration of any lane rental proposals that TfL or other authorities might submit. The "best estimate" is consistent with a number of different interpretations; suppose for example that initial scheme development work is carried out in London and four smaller urban areas, and in each of those cases there is a 50% likelihood that this initial work will lead to the authority developing a firm scheme proposal that is subsequently approved by the Secretary of State[6].

The analysis shows a net benefit to business over the appraisal period. This is because the anticipated benefits to the general business community (resulting from reduced traffic congestion) outweigh the costs to street works undertakers (of adopting less disruptive working practices where they can, and of paying lane rental charges where they cannot). Accordingly, although lane rental counts as an "IN" for the purposes of the Government's "one in, one out" rules, there is no net cost to business and so an offsetting "OUT" is not required.

Option 2: assessment of costs and benefits

Option 2 – costs

In common with option 1, the principal costs of the permit-based approach would be borne by street works undertakers (and to some extent passed on to their customers). These costs would comprise the costs of operating in less disruptive ways, in order to comply with permit conditions, and the fixed penalties incurred on those occasions where it was not possible (or judged uneconomic) to do so. Administrative costs would also be involved, and it is anticipated that those costs faced by highway authorities would be significantly higher than under option 1 for the reasons set out in the earlier description of Option 2.

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[6] If the expected cost of a TfL scheme is given by C_{TFL} and that of another authority's scheme is C_{OTHER}, and assuming $C_{OTHER} = 0.25 * C_{TFL}$…
Expected costs = $50\% * [C_{TFL} + (4 * C_{OTHER})] = 50\% * [C_{TFL} + (4 * 0.25 * C_{TFL})] = 50\% * [C_{TFL} + C_{TFL}] = C_{TFL}$.

Option 2 – benefits

The nature of benefits expected to arise under option 2 are the same as those under option 1.

Option 2 – summary of monetised costs and benefits

Table 2 below presents indicative estimates of costs and benefits, again based on unpublished analysis presented to the Department for Transport by TfL. The analysis assumes that highway authorities in London would choose to apply this option on a significantly more widespread basis than option 1, as all permit authorities in London (ie many of the London boroughs, in addition to TfL) could choose to implement it under the terms of their existing permit schemes, and would not be constrained by the same "targeting" requirement as is proposed as a prerequisite for securing Secretary of State approval for lane rental schemes.

Specifically, the analysis assumes that the approach would be applied to all streets that have been designated "traffic-sensitive" by the highway authority – estimated to be roughly 20% of streets in London. (Streets can be designated as traffic-sensitive if they meet one or more of a set of criteria set out in existing regulations – the criteria relate to matters such as traffic flows, usage of the street by commercial vehicles and buses, etc).

For consistency with option 1, costs and benefits are evaluated over a five-year period.

TABLE 2 – indicative costs and benefits from TfL's analysis

£ million	Year						PV
	0	1	2	3	4	5	
Costs							
Fixed penalties paid by undertakers	0	45	45	29	29	29	161.3
Costs of behaviour change by undertakers	0	18	18	31	31	31	115.3
Scheme admin costs for highway authority	4.3	6.4	6.4	6.4	6.4	6.4	33.2
TOTAL COSTS	*4.3*	*69.4*	*69.4*	*66.4*	*66.4*	*66.4*	*309.8*
Benefits							
Reduction in negative externalities	0	68	68	93	93	93	372.4
…of which reduction in delay costs	*0*	*61.2*	*61.2*	*83.7*	*83.7*	*83.7*	*335.2*
…of which reduction in delay costs to businesses	*0*	*27.5*	*27.5*	*37.7*	*37.7*	*37.7*	*150.8*
Fixed penalty revenue accruing to authorities	0	45	45	29	29	29	161.3
TOTAL BENEFITS	*0*	*113*	*113*	*122*	*122*	*122*	*533.7*
Net benefits	**-4.3**	**43.6**	**43.6**	**55.6**	**55.6**	**55.6**	**223.9**
Impacts on businesses							
Benefits to general business community	0	27.5	27.5	37.7	37.7	37.7	150.8
Costs to street works undertakers	0	63	63	60	60	60	276.6
Net benefit to business	0	-35.5	-35.5	-22.3	-22.3	-22.3	-125.8

In the summary sheet for Option 2, "low", "high" and "best" estimates are derived from the TfL analysis in the same way as for Option 1. As with Option 1, there are obvious uncertainties surrounding the likely level of take-up by local authorities. In that sense, the overall balance between the estimated costs and benefits may be more instructive than the absolute levels of those estimates.

Option 3: assessment of costs and benefits

Option 3 – costs

Participation in non-regulatory measures is not compulsory, and so costs would be expected to be incurred only where the entity incurring them expected to secure benefits that exceed those costs.

The immediate costs involved in participating in the non-regulatory initiatives described would be:

- costs of software development needed to generate the data needed to populate the proposed 'performance scorecard'. (The scorecard is to be based on raw data already contained within local authorities' street works management systems, so the only cost is that of developing software to process the raw data into a useful format.)
- costs of preparing and disseminating best practice guidance; and
- costs of deciding whether or not to participate in the Code of Conduct.

These costs essentially relate to staff time, and are expected to be small relative to the costs associated with options 1 and 2. They will be measurable in thousands rather than millions of pounds. However, taking the actions described above will generate no immediate benefits. Benefits only arise if street works undertakers choose to implement behavioural changes in their own works as a result of the non-regulatory initiatives. Those behavioural changes would involve more substantial costs, such as:

- costs of reforming works management processes and employing additional staff to improve timeliness of completion of works;
- costs of improving standards of highway reinstatements, which might involve additional training of operatives and supervisors and additional time spent completing each individual reinstatement;
- costs of applying best practice in communicating with road users, local communities, businesses and others affected by individual street works; and
- costs of adopting less disruptive working practices in line with the Code of Conduct.

The scale of costs incurred will depend fundamentally on undertakers' decisions on whether, and if so to what extent, to change their behaviours as a result of the non-regulatory measures described. There is no robust basis on which to quantify the likely costs.

Option 3 – benefits

Benefits from these non-regulatory measures might include:

- reductions in disruption caused by works, and environmental benefits consequential on a reduction in congestion;
- better-quality reinstatements, providing a longer-lasting road surface and reducing the need for disruptive remedial works to be carried out; and
- local communities, and others affected by works, feeling better informed about planned works and therefore better able to plan alternative routes in advance.

As yet, there is no evidence on which to monetise the potential impacts of these non-regulatory measures, but initial indications from the London Code of Conduct are positive[7]. In general, the impacts of these kinds of non-regulatory measures are difficult to disentangle from the impacts of regulatory measures and of other general improvements in working practices that would have taken place anyway.

Option 3 – balance between costs and benefits

Given that these measures depend on street works undertakers voluntarily choosing to adopt better (but more expensive) working practices, it is expected that the overall magnitude of costs and benefits would be substantially more modest than those arising from options 1 or 2 (if they were applied to the same, very limited, geographical extent as those options). On the other hand, the non-regulatory measures are in principle suitable for application on a more widespread basis across the country.

There is no reason to think that street works undertakers or local authorities would choose to adopt these non-regulatory measures unless they expected to secure benefits that would exceed the costs involved.

[7] *Mayor's Code of Conduct Annual Report 2009-10*, Mayor of London & Transport for London.

Accordingly, the Government sees clear value in pursuing these measures, and is working with the Highway Authorities and Utilities Committee (HAUC(UK)) who are leading the work to implement them.

However, despite the expectation that non-regulatory measures will deliver some benefit, the Government also remains concerned about the adverse impact of works on the most critical parts of local road networks, and believes that the scale of these impacts is sufficient to justify additional, targeted action focused specifically on these most critical parts of the network. Non-regulatory solutions simply cannot address the fundamental problem that, on these critical parts of the network, the financial incentives facing street works undertakers (to minimise cost) are poorly aligned with maximising social welfare (which depends on undertakers taking full account of the costs their works impose on society when deciding how to organise those works) – i.e. non-regulatory measures will not address the underlying "externality" problem.

Risks and assumptions

Options 1 and 2

As explained earlier, the assessment of costs and benefits of the two regulatory options are based on initial analysis carried out by Transport for London. They are compared against a "business as usual" scenario in which actions and initiatives being undertaken by TfL to smooth traffic on their network (including the London Permit Scheme) will act to offset other factors that would tend to work in the other direction, such that the network is assumed to maintain current levels of journey time reliability on TfL's roads in the morning peak (ie the busiest period of the day). In effect, then, non-regulatory measures such as the London Code of Conduct (covered by Option 3) form part of the baseline assumption against which Options 1 and 2 are assessed.

Other key assumptions relate to:

(i) scheme design and coverage;

(ii) the extent of the behavioural response by street works undertakers (i.e. how far will lane rental charges will result in the adoption of less disruptive working practices and techniques); and

(iii) assumptions about how many authorities might apply to the Secretary of State, and secure approval, to run pilot lane rental schemes.

The impact assessment acknowledges that there are significant uncertainties surrounding each of these three assumptions. The resulting risks are:

(i) further analysis by TfL is likely to lead to further refinement of the proposed scheme design, and other authorities might develop different approaches. This could affect the overall balance between benefits and costs. However, as noted above, approval would not be granted unless the scheme proposer had shown that the benefits of the chosen scheme will outweigh the costs;

(ii) if the behavioural response by street works undertakers to any given level of charge is less [more] than anticipated, then the costs of lane rental would to be higher [lower] and the benefits of lane rental would be lower [higher];

(iii) all else being equal, a greater [lesser] number of successful applications can be expected to increase [decrease] the overall costs and benefits in similar proportions.

It is anticipated that further work carried out during the course of this year will enable some refinement of the cost and benefit estimates presented in this impact assessment.

Option 3

Securing benefits under option 3 will depend upon:

- local authorities choosing to gather and disseminate 'performance scorecard' data in their area, and to benchmark performance against other parts of the country. Benefits will only arise from the scorecard if, by using the data to identify and shine a light on areas of relative strength and weakness, authorities are then able to work with street works undertakers to secure improvements in performance where they are most needed;
- undertakers choosing to learn about, and apply the lessons of, existing best practice from elsewhere in the sector to a greater extent than they would have chosen to do in the absence of published case-studies and guidance; and

- undertakers choosing to sign up to the Code of Conduct, and as a result implementing changes to their working practices that they would not otherwise have chosen to implement.

Because of the substantial uncertainty around these issues, it is not considered feasible to provide monetised estimates of costs and benefits of this option.

Being voluntary in nature, these measures are outside the scope of the 'one in, one out' rules.

Preferred option

While non-regulatory measures (Option 3) are separately being pursued by the street works sector, the preferred option for the purposes of this impact assessment is to legislate to allow future lane rental schemes. However, recognising the uncertainty surrounding the likely level of costs and benefits, the intention is to proceed with only a very small number of pilot schemes in the first instance. This will enable real-world evidence to be gathered, to inform future decisions about whether more schemes should be supported.

The preference for Option 1 is in large part informed by the relative balance between costs and benefits under the options considered. Although the net benefit of option 2 is higher, this arises because of the assumption that option 2 would be applied by authorities on a higher proportion of their roads than option 1. (This in turn is because the implementation of pilot schemes under option 1 will be tightly constrained by the requirement for Secretary of State approval, whereas under option 2 local authorities would have full discretion to choose which of their streets to include.)

In this context, it is also instructive to consider the benefit-cost ratios (BCR) of the two options; the BCR of option 1 is substantially more favourable. Moreover, option 1 is expected to deliver a positive net benefit to the business sector. By contrast under option 2, the expected benefits to the general business community are significantly outweighed by the costs to the utility sector and other private-sector street works undertakers. Option 1 is also believed to be more consistent with the Hampton principles, in particular because it focuses new regulatory activity on those areas that need it most (in this case, focusing charging on the most critical parts of the road network, where works cause the highest levels of disruption).

A key feature of the preferred option is that, unlike the alternative, it should provide a long-run incentive for works promoters to invest in research and development into new, less-disruptive techniques. Assuming such R&D helped to prove the viability of new techniques that helped street works undertakers to reduce disruption, it would enable undertakers to reduce their exposure to lane rental charges in the future. Moreover, new techniques emerging from such R&D would be available for application across the whole country, not just within the boundaries of any lane rental schemes.

It is important to recognise that the proposed Regulations, of themselves, will impose no costs and deliver no benefits. The Regulations merely establish some basic parameters within which all schemes must operate – for example, setting out the principle that charges may not be applied on a street unless it has been designated "traffic-sensitive"; prescribing certain categories of minor works that are automatically exempted from charges. Once the Regulations are in force, it would be for highway authorities to develop their own scheme proposals. Before they could be implemented, they would require the approval of the Secretary of State. Costs and benefits would arise only once individual scheme proposals had been approved by the Secretary of State and implemented by the relevant highway authority.

This requirement for approval provides an opportunity to build in a number of important safeguards to help ensure that lane rental schemes deliver sufficient benefit to justify the cost, and are consistent with the Government's "one in, one out" policy. Specifically, the Government proposes that (among other things) an authority seeking the Secretary of State's approval to implement lane rental would need to demonstrate that:

- the benefits of the proposed scheme would be sufficient to justify the costs. Authorities would need to provide a robust, evidence-based case to demonstrate this;
- the benefits of the proposed scheme *to businesses* would exceed the costs *to businesses*. Again, authorities would need to provide a robust, evidence-based case. Requiring this condition to be met will ensure that schemes do not impose net new costs on the business sector;

- the proposed scheme is carefully targeted on the most critical parts of the road network – i.e. where works cause the greatest disruption – and that an evidence-based approach had been taken to identify those places;
- the proposed scheme incorporates real opportunities for works promoters to reduce their exposure to charges, through exemptions and/or discounts where works are carried out at less disruptive times – i.e. schemes should not simply operate as an unavoidable levy that provides no meaningful incentive to change behaviour;
- the proposed charges are set at a level that will be sufficient to encourage behavioural change, but not excessive relative to the external costs imposed by the works to which charging would apply;
- authorities proposing schemes have a clear and robust plan in place to evaluate the performance of those schemes, to inform future decisions as to whether they should continue to operate.

Furthermore, the Government's intention would be to approve no more than a very small number of scheme proposals in the first instance. This would enable authorities to gather and present real-world evidence of the effectiveness of the proposed highly-targeted approach to lane rental, which in turn would inform future decisions about whether lane rental might usefully be applied more widely.

Proposed regulations would limit the use of lane rental revenues to measures intended to reduce future disruption caused by works. Such measures could include research and development into new disruption-saving techniques or the installation of "pipe subways" at critical points on the network. This constraint will help to reassure the public that lane rental will be implemented for genuine transport policy reasons, avoiding perceptions that it is being used to raise general revenues for the local authority at the expense of street works undertakers and their customers. It also ensures that revenues are used in a way that further supports the achievement of the objectives that lane rental schemes are intended to meet.

Scheme implementation and enforcement

As noted previously, it would be for highway authorities to develop scheme proposals and implementation plans (in consultation with street works undertakers and other interested parties). Existing electronic systems by which undertakers give notice of their works, including start and finish dates, should provide some of the information needed by authorities to establish what charges are due from each undertaker. However, depending on scheme design, it may well be necessary for authorities operating lane rental schemes to gather additional evidence of charge liabilities (which might be possible by on-street observation or via CCTV). Monitoring and enforcement activities would need to be funded by the authority: it is not proposed to introduce additional powers for authorities to charge inspection fees to support lane rental schemes. TfL's initial analysis suggests scheme running costs could be of the order of £¾ million. The majority of these costs are expected to be monitoring and enforcement costs, though this will depend on how much can cost-effectively be done by means of camera-based enforcement rather than site inspections. Assuming an annual enforcement cost of £½ million, and applying the same scaling factor as mentioned earlier, suggests overall enforcement costs of £1 million p.a. in the "high case" scenario and £½ million as a "best estimate".

Where disputes do arise, street works undertakers and highway authorities would be expected to reach a mutually acceptable resolution in most cases – as they do at present with overrun charges, for example. Where this cannot be achieved, there is an existing procedure for arbitration between the two parties, managed by the Highway Authorities and Utilities Committee (HAUC(UK)). This is provided for in the existing Code of Practice for the Coordination of Street Works and Works for Road Purposes and Related Matters. It is not therefore anticipated that any new criminal or other regulatory sanctions will be needed in respect of lane rental schemes.

Evaluation

The Government will expect a robust evaluation plan to be built in to any proposed scheme that is submitted for Secretary of State approval. As the evaluation plan would be an integral part of the scheme, authorities would need to adhere to that plan in order to comply with the terms of Secretary of State approval. Each scheme's evaluation plan would need to set out the evidence that will be collected to enable a proper evaluation to take place, and the pre-lane rental benchmarks against which the comparison would be made. Subject to consultation, it is envisaged that authorities would be expected to evaluate their schemes at least annually.

Robust evaluation of individual schemes will be especially important given the Government's intention that, in the first instance, no more than a very small number of "pilot" schemes would be approved. Evidence from the early evaluations will be needed to inform subsequent decisions on whether to invite further applications from authorities wishing to operate schemes.

The suggestion (in the summary sheet) that an overall evaluation of the impact of the regulations would take place in spring 2017 is consistent with the currently-proposed "sunset clause", under which lane rental regulations would cease to have effect in spring 2018. If the first lane rental scheme(s) came into operation during 2012, that would mean four to five years' operational evidence being available to inform the Government's overall assessment of the legislation.

Annexes

Annex 1 should be used to set out the Post Implementation Review Plan as detailed below. Further annexes may be added where the Specific Impact Tests yield information relevant to an overall understanding of policy options.

Annex 1: Post Implementation Review (PIR) Plan

A PIR should be undertaken, usually three to five years after implementation of the policy, but exceptionally a longer period may be more appropriate. If the policy is subject to a sunset clause, the review should be carried out sufficiently early that any renewal or amendment to legislation can be enacted before the expiry date. A PIR should examine the extent to which the implemented regulations have achieved their objectives, assess their costs and benefits and identify whether they are having any unintended consequences. Please set out the PIR Plan as detailed below. If there is no plan to do a PIR please provide reasons below.

Basis of the review: [The basis of the review could be statutory (forming part of the legislation), i.e. a sunset clause or a duty to review , or there could be a political commitment to review (PIR)]; The Government's expectation is that a robust evaluation plan will be built in to any proposed scheme that is submitted for Secretary of State approval. As the evaluation plan would be an integral part of the scheme, authorities would need to adhere to that plan in order to comply with the terms of Secretary of State approval. Individual authorities' evaluations would inform central government's overall assessment of the effectiveness of the legislation; that assessment would need to be carried out in 2017, ahead of the proposed "sunset clause" date of April 2018.
Review objective: [Is it intended as a proportionate check that regulation is operating as expected to tackle the problem of concern?; or as a wider exploration of the policy approach taken?; or as a link from policy objective to outcome?] The objective of any scheme evaluation plan would be to assess the extent to which the scheme objectives (as stated in the scheme) are being met, and the appropriateness of key parameters of the scheme (e.g. its coverage and charge levels). As indicated above, scheme evaluations by individual authorities who implement lane rental schemes would inform the Government's view as to the overall effectiveness of the legislation.
Review approach and rationale: [e.g. describe here the review approach (in-depth evaluation, scope review of monitoring data, scan of stakeholder views, etc.) and the rationale that made choosing such an approach] It is for highway authorities to propose suitable methodologies for evaluating their individual schemes.
Baseline: [The current (baseline) position against which the change introduced by the legislation can be measured] Baseline positions would need to be set out as part of individual authorities' evaluation plans.
Success criteria: [Criteria showing achievement of the policy objectives as set out in the final impact assessment; criteria for modifying or replacing the policy if it does not achieve its objectives] Success criteria should be set out as part of individual authorities' evaluation plans.
Monitoring information arrangements: [Provide further details of the planned/existing arrangements in place that will allow a systematic collection systematic collection of monitoring information for future policy review] Monitoring information arrangements should be set out as part of individual authorities' evaluation plans.
Reasons for not planning a review: [If there is no plan to do a PIR please provide reasons here] Not applicable.

Annex 2 – specific impact tests

Although the following assessments refer to lane rental (ie Option 1), they are judged to be equally applicable to Options 2 and 3 except where indicated to the contrary.

Statutory Equality Duties

The Government does not consider that there will be a direct impact on statutory equality duties. To the extent that any unavoidable costs arising from lane rental are passed through to utility bills, households for whom utility costs account for a higher-than-average proportion of their income could be proportionately more affected than others. But given the indirect nature of this impact, and its likely scale given the small number of pilot schemes currently envisaged, an Equality Impact Assessment is not considered necessary or proportionate.

Economic Impacts

Competition

Lane rental charges would apply equally to all street works undertakers (principally utility companies responsible for managing the infrastructure of utility services, i.e. electricity, gas, water and communications companies). This would include not just those who have a statutory right to place and maintain apparatus in the highway (e.g. under the Gas, Electricity, Water and Communications Acts), but also those who do so by virtue of a street works licence issued by the relevant local highway authority (e.g. those who operate small private utility supplies). Accordingly, the Department does not believe that there would be implications for competition by implementing the proposed new lane rental regulations, which would apply equally to all undertakers.

Non-regulatory measures would be entirely voluntary in nature, so no impacts on competition are envisaged.

Small Firms Impact Test

Lane rental charges would apply equally to all street works undertakers, regardless of size. Costs of compliance for smaller organisations could be reduced by ensuring that, where highway authorities need information to calculate charge liabilities that is not already provided through existing automated systems for exchanging information about street works, the authority takes responsibility for gathering that information rather than requiring individual undertakers to supply it.

The Department is not aware of any micro-businesses or start-ups currently involved in street works, but will be considering whether an exemption ought nevertheless to be included in the proposed Regulations in accordance with the moratorium announced as part of Budget 2011.

Non-regulatory measures would be entirely voluntary in nature, so no adverse impacts on small firms are envisaged.

Environmental Impacts

Greenhouse Gas Assessment

While transport is one of the major contributors to greenhouse gas emissions, it is difficult to model the impact lane rental will have. By reducing congestion, lane rental can be expected to increase overall traffic speeds (tending to increase emissions) – but also to reduce acceleration and deceleration that arises in stop-start traffic (tending to reduce emissions). *A priori,* the balance between these impacts is ambiguous. It will depend upon a complex interaction of local factors that determine traffic speeds and flows with and without lane rental. This means there is currently no sound basis on which to produce a robust estimate of the overall carbon impact of lane rental.

Wider Environmental Issues

A reduction in traffic congestion will result in an improvement in local air quality and reduce the amount of noise pollution at busy times.

However, lane rental schemes could encourage increased working at night or at weekends. Authorities would therefore need to consider how best to avoid unacceptable increases in noise in residential areas, and decisions about scheme design would need to take account of those impacts. Highway and environmental health departments would need to liaise closely on these issues to strike an appropriate balance between transport and environmental issues.

Social Impacts

Health and Well-being

The lane rental regulations will not have a direct impact on health; however, to the extent that schemes improve air quality by reducing congestion, there could be indirect health benefits.

Human Rights

The Department has identified no impact on Human Rights.

Justice System

The Department has identified no impact on the Justice System, as disputes should be resolved informally or (if necessary) via established arbitration processes.

Rural Proofing

The lane rental regulations would apply equally to authorities in urban and rural areas. In practice, the places where works are most disruptive are often in the most congested urban areas, and so schemes in those areas are likely to deliver the greatest benefits. However, some inter-urban links and other rural roads also suffer high levels of congestion, and each lane rental proposal would need be considered by the Secretary of State on its own merits.

Sustainable Development

The Department has identified no conflict between the lane rental proposals and sustainable development principles.