

Toolkit For Local Transport Highways Efficiency

The Toolkit was published by the Highways Efficiency Liaison Group (HELG), which includes representatives of government, local government and industry, in April 2007.

It defines cashable and non-cashable efficiency:

- Cashable efficiency - services provided to at least the same level of quality for reduced cost.
- Non-cashable efficiency - service quality improves for the same cost, or proportionally more service is delivered when costs increase. The toolkit provides a formula for calculating non-cashable efficiencies.

Cashable Efficiency Calculation

Efficiencies are self-assessed by local authorities. Efficiencies must not compromise quality or reduce service. Cashable efficiencies require a quality cross check to demonstrate that service quality has not fallen.

This information was provided over a longer period, going back to 2001, to an earlier meeting. However, as this HELG toolkit has a recommended base year of 2004/05, the cashable efficiency calculations have been reviewed.

From the information in Annex 1 it can be shown that over the period 2004/5 to 2006/7 cashable efficiency savings of £1530k have been achieved.

Non-cashable efficiency calculation

A formulaic approach over the whole highways service is used.

The toolkit recommends:

- using the ROADCON index published by the DTI to calculate inflation in highway maintenance costs
- taking 2004/5 as the base year
- using defined BVPIs to assess service levels

An outline of the calculations is shown in Annex 2. By using this methodology, as defined in the toolkit and applying it to CYC from 2004/05, it can be shown that:

- The rise in expenditure has been less than inflation, giving a saving of £2324.6k
- Performance has improved even though there has been a saving compared to inflation, giving a further efficiency saving of £464.7k

The above gives a total non-cashable efficiency saving of £2789k

Drawbacks to this method of calculation for non-cashable efficiency savings

The Road Construction Tender Price Index is based on priced rates contained in accepted tenders for Road Construction, Motorway Widening and Major Maintenance Schemes costing over £0.25m and obtained from the Highways Agency and Local Authorities in England, Scotland and Wales. The data collected allows the base index to be adjusted according to location, scheme type and contract value. However, rates obtained for individual major maintenance schemes are not directly comparable to costs of ongoing basic maintenance. The ratio of material costs to plant and labour costs will be different, and short term market variations will play a greater role. The index used for the current CYC Term Maintenance Contract shows lower inflation over this period.

The recommended basket of BVPIs contains several which have changed over this period, from the point of view of the way they are measured, so they cannot be used in the calculation.

Although BVPIs have continued to improve through a period of reduced expenditure, this can be attributed to the investment over previous years, and a reduction in carriageway condition can be expected in future years.

Total cashable and non-cashable efficiency saving

Using the HELG approach, the combination of the two types of savings gives a total cashable and non-cashable saving of £4319k.

Annex 1

Efficiency Improvement Table

Examples of Cashable Efficiency - through reduction in cost	Estimated Cashable Efficiency (£k) from 2004/5 to 2006/7	Comment
Design, manage and build approach to small R&R schemes (from 2005/6))	110 (55 annual)	Total package of works provided by NS. Schemes design on a 'fit for purpose' basis
Savings on public liability claims through improved safety inspections and robust defense	450 (150 annual)	Very high levels of repudiation due to systems in use – such as the efficiencies due to Driver + Inspector operation meaning that more is inspected.
Energy procurement savings from 2006 supply arrangement	255	A revised procurement of 'green' energy produced savings on the budgets through to Oct 2008
Works programme efficiencies (from 2004/5)	225 (75 annual)	Made possible through provision of a <u>full</u> works programme enabling efficient employment of staff and resources in NS
Recovery of maintenance costs from third parties (from 2005/6)	40 (20 annual)	Staff have developed improved systems and are being more successful in the recovery of money
Savings on the use of Safecoat in winter maintenance (from 2005/6)	100 (50 annual)	This material has saved money and is less harmful to the environment
R&R scheme savings from 2006 procurement [net savings taking into account increases on SD and SS schemes] (from 2006/7)	350	The latest contract with Tarmac has produced typical savings of 29% on R&R schemes but an increase in costs on surface dressing and slurry seal works
Total of estimated cashable efficiency improvements listed above	1,530	

Using the relevant recommended BVPIs, plus survey results for carriageway surfacing, it can be demonstrated that CYC's performance in highway maintenance has not deteriorated over the period 2004/5 to 2006/7

Crosschecks	2004/5 indicator	2006/7 indicator	Change	Comments
Approved quality crosschecks				
Number killed or seriously injured road casualties BV99a	100	101	Stable	
Temporary traffic control BV100	0 days	0 days	Stable	
Condition of principal roads BV223*		7%		New indicator 2005/6 using SCANNER machine survey method
Rectification of street lighting faults BV215a		2.49		New indicator 2005/6
Condition of footways BV187*	15.81%	15.00%	Stable	
Non approved indicators **				
Condition of principal roads by CVI (BV96)*	7.80%	7.80%	Stable	Indicator changed to BV223 in 2005/6, using SCANNER survey method
Condition of non principal classified roads by CVI (BV97a)*	18.80%	14%	Improved	Indicator changed to BV224a in 2006/7, using SCANNER survey method
Condition of unclassified roads by CVI (BV97b and 224b)*	15.20%	12%	Improved	
% people satisfied with the condition of roads and pavements in York	51%	51%	Stable	Local indicator

* % defective

** CYC continued CVI surveys after introduction of SCANNER to obtain a consistent measure of condition
marginal improvement and deterioration is designated 'stable'

Annex 2

Non-cashable efficiency saving

There are two parts to this calculation; 'withstanding inflation' and 'improving performance'.

Withstanding inflation

Expenditure over the period 2004/5 to 2006/7 has not increased with inflation, so because service levels do not indicate a decline over that period, as shown later in this annex, this gives an efficiency saving on revenue and capital of £2325k:

REVENUE SPEND

All £k

year	actual		2004/5 equivalent using Roadcon		difference
2004/5	5615				
2005/6	5833		6041.22		208.22
2006/7	5318		6674.33		1356.33

Total rev 1564.55

CAPITAL SPEND

All £k

year	actual		2004/5 equivalent using Roadcon		difference
2004/5	3693				
2005/6	3635		3973.33		338.33
2006/7	3968		4389.72		421.72

Total cap 760.05

Total non-cashable efficiency saving due to 'inflation' is £2324.6k

.

Improving performance

Using the recommended BVPIs, plus survey results for carriageway surfacing, it can be demonstrated that CYC's overall performance in highway maintenance has improved over the period 2004/5 to 2006/7, increasing the efficiency saving

Crosschecks	2004/5 indicator	2006/7 indicator	Comments
Approved quality crosschecks			
Temporary traffic control BV100	0 days	0 days	
Condition of principal roads BV223*		7%	New indicator 2005/6 using SCANNER machine survey method
Rectification of street lighting faults BV215a		2.49	New indicator 2005/6
Pedestrian crossings with facilities for the disabled BV165	100%	67%	Change in national standard in 2006
Public rights of way that are easy to use BV178	61%	77.25%	
Condition of footways BV187*	15.81%	15.00%	
Non approved indicators **			
Condition of principal roads by CVI (BV96)*	7.80%	7.80%	Indicator changed to BV223 in 2005/6, using SCANNER survey method
Condition of non principal classified roads by CVI (BV97a)*	18.80%	14%	Indicator changed to BV224a in 2006/7, using SCANNER survey method
Condition of unclassified roads by CVI (BV97b and 224b)*	15.20%	12%	

* % defective

** CYC continued CVI surveys after introduction of SCANNER to obtain a consistent measure of condition

By following the process in the toolkit the average service level improvement is 4.2%.

When applied to the 2006/7 equivalent of the actual expenditure in 2004/5:

Spend	All £k			
2004/5	Revenue	5615		
	Capital	3693	total	9308
			inflated using Roadcon @ 18.87% =	11064

the calculation gives a further non-cashable efficiency saving due to performance of £464.7k

TOTAL NON CASHABLE EFFICIENCY SAVING = £2324.6+464.7=£2789k