

Commuted Lump Sum

A Guide for Promoters of Major Third Party Projects

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1. Introduction

We (National Highways) are the government owned company which plans, designs, builds, operates and maintains England's motorways and major A roads, known as the strategic road network (SRN). We manage and improve England's motorways and major A roads, helping our customers have safer, smoother and more reliable journeys.

We charge a Commuted Lump Sum (CLS) for maintenance on all third-party projects that create new or changed assets on the SRN. This ensures the funding of future operation maintenance and renewal of new or changed assets and is crucial for operating a safe, efficient and reliable network, which enables economic growth and connects the country.

This document complements the National Highways CLS Policy. It sets out a transparent and consistent approach to how CLS are levied on major third-party projects, where new or changed highway infrastructure assets are being adopted by National Highways.

This document clarifies the obligations of the Promoter. The aim of the document is to reduce uncertainty and risk for both Promoters and National Highways, by considering operational maintenance, renewal and CLS requirements from the earliest practicable stage of a third-party project.

We exercise our right to charge a CLS under Sections [6](#), [8](#), [38](#) and [278](#) of the Highways Act 1980.

2. Scope

This document sets out the high-level process for how an appropriate CLS is calculated and applied in a consistent manner.

The intent of the document is to offer Promoters of major third-party projects the opportunity to engage with us on the issue of CLS from the earliest stages of a project. Major third-party projects are defined as those requiring a Development Consent Order or Hybrid Bill or which have a significant impact on the SRN. This approach may be adopted in full or on a light touch basis on other schemes that have a significant impact on the SRN and is agreed by National Highways and the Promoter.

Consideration of the operation, maintenance and renewal of new or changed assets in the development of a project and the associated cost (the CLS) is important for both the Promoter and us. This approach provides clarity to Promoters of a major cost item associated with their works on the SRN. It enables them to plan for project delivery from an early stage, based on robust information. This allows developers to understand the full costs and affordability of their project.

It is important to us that CLS is considered from the earliest practicable stage in the process and that the associated operation, maintenance and renewal aspects are integrated into the design process.

This document is part of a wider initiative to help third-party project Promoters effectively engage with us in development and delivery of major third-party projects.

3. Legal

Highways Act 1980

Under sections 6, 8, 38 and 278 of the Highways Act 1980, National Highways has the power to authorise the construction of new roads or secure improvements to existing roads.

Commuted sums in relation to section 38 agreements

Section 38(6) states:

“An agreement under this section may contain such provisions as to the dedication as a highway of any road or way to which the agreement relates, the bearing of the expenses of the construction, maintenance or improvement of any highway, road, bridge or viaduct to which the agreement relates and other relevant matters as the authority making the agreement think fit”.

Commuted sums in relation to section 278 agreements

Section 278(3) states:

“The agreement may also provide for the making to the highway authority of payments in respect of the maintenance of the works to which the agreement relates and may contain such incidental and consequential provisions as appear to the highway authority to be necessary or expedient for the purposes of the agreement”.

Both sections 38 and 278 contain powers enabling National Highways to secure contributions (CLS) from third parties for the future renewal and operation maintenance of highway assets.

There is a court of appeal decision from October 2014¹ that confirms that highway authorities may, when entering into agreements under section 38 of the Highways Act 1980, legitimately charge CLS for the future maintenance of highways after adoption.

Commuted sums in relation to section 6 and 8 agreements

Section 6 gives power for the Minister or a strategic highway company (i.e. National Highways) to delegate to a local highway authority functions with respect to maintenance and improvement of any trunk road or associated land by agreement with the local highway authority

Section 8 gives powers to *“local highways authorities and strategic highways companies to enter into agreements for or in relation to the construction, reconstruction, alteration, improvement or maintenance of a highways for which any party to the agreement are the highway authority.”* Section 8 further states *“Expenses incurred in the pursuance of an agreement made under this section shall be borne for the parties to the agreement in such proportions as may be determined by the agreement.”*

¹ Redrow Homes Ltd v Knowsley Metropolitan Borough Council

4. Process

Figure 1 shows the high-level application of CLS policy by us and Promoters over the lifecycle of a third-party project. Mandatory activities are shown in ***bold and italics***.

Figure 1: High level process for CLS

		Promoter Activity	National Highways Activity	Benefits
Project Stage	Options Stage	<p>Contacts National Highways at project initiation.</p> <p>Provides information to National Highways to enable preparation of CLS Order of Magnitude Estimates.</p>	<p>Informs Promoter of CLS requirement and process.</p> <p>Reviews design options.</p> <p>Prepares CLS order of magnitude estimates for design options and communicates this to the Promoter including assumptions.</p>	<p>Promoter understands scale of CLS and key cost drivers to enable them to optimise their design.</p>
	Preliminary Design	<p>Develops preliminary design. Engages with National Highways.</p> <p><i>Provides information to National Highways to prepare CLS Preliminary Estimate.</i></p> <p>Accept the CLS preliminary estimate.</p>	<p>Reviews and comments on the preliminary design.</p> <p><i>Prepares CLS Preliminary Estimate and communicates this to the Promoter including assumptions made.</i></p>	<p>Promoter has early awareness of requirement and potential cost.</p>
	Statutory Procedures	<p>Engages with National Highways where there are changes that may result in an impact on the SRN.</p>	<p>Advises Promoter of issues that need to be addressed where changes arising from the DCO process impact on the SRN.</p>	<p>Enables a common understanding of impacts on SRN arising from the DCO.</p>
	Detailed Design	<p>Develops detailed design. Engages with National Highways.</p> <p><i>Provides information to National Highways to enable Preparation of CLS Detailed Estimate to enter into relevant legal Agreement.</i></p>	<p>Reviews and comments on detailed design.</p> <p><i>Prepares CLS Detailed Estimate and communicates this to the Promoter including assumptions made.</i></p>	<p>Provides a high degree of confidence to Promoter and National Highways of costs involved.</p>
	Completion	<p>Provides as built information to National Highways.</p> <p><i>Pays final CLS to National Highways on receipt of invoice.</i></p>	<p><i>Prepares Final CLS and issues invoice to Promoter.</i></p>	<p>CLS paid based on what has actually been built.</p>

Notes on high level process:

- Mandatory activity is that which is needed to complete the CLS process.
- Non-mandatory activity is considered best practice and enables the smooth and effective development of project and completion of the CLS process, benefiting both Parties.
- The review of design in options, preliminary design and detailed design stages relate to a review of the operations, maintenance and renewals elements of the design. They are not a technical check to accept design proposals but to help identify anything unacceptable to us.
- The construction stage is not included in the process as no CLS activity takes place during construction.

5. Responsibility of the Parties

The table below sets out the activities in each stage and responsibilities of each party including some indicative timescales.

Activity No.	Task	Responsible Party		Indicative Timescale
		Promoter	National Highways	
Detailed Design				
1	Promoter progresses and shares draft detailed design	✓		
2	Review and comment on detailed design draft		✓	8 weeks however exact timescales subject to the scale and complexity of the task.
3	Promoter finalises detailed design incorporating NH feedback	✓		
4	Promoter submits detailed design for calculation of CLS	✓		
5	CLS produced from Promoter's detailed design		✓	
6	Internal assurance of CLS		✓	Estimated 12 weeks from receipt of required information.
7	CLS estimate issued to promoter		✓	
8	Promoter reviews CLS	✓		
9	Joint walk through of CLS estimate	✓	✓	
10	Joint governance to agree CLS	✓	✓	Allow an 8 week window.
11	Promoter accepts CLS estimate	✓		
12	CLS incorporated into relevant legal agreement		✓	
Completion				
1	Promoter prepares and submits as-built drawings and asset information	✓		
2	Final CLS produced using actual asset quantities / as built drawings		✓	Estimated 12 weeks from receipt of required information.
3	Internal assurance of CLS		✓	
4	CLS issued to promoter		✓	
5	Promoter reviews final CLS	✓		
6	Joint governance to agree final CLS	✓	✓	Allow an 8 week window.
7	NH raises invoice for CLS		✓	Issued within 4 weeks of completion of internal governance.
8	Promoter pays CLS	✓		To be paid within 4 weeks.
9	CLS payment received by NH		✓	

Note: timescales for each activity stated above are indicative only and are to be agreed on a case by case basis, subject to the scale and complexity of the project.

6. Calculating the Commuted Lump Sum

6.1. Do-minimum and Do-Something Scenarios

CLS for future operation and maintenance costs are calculated from assessment of the following scenarios:

- The 'do-minimum' scenario - National Highways' existing operation and maintenance forecast costs for the area affected by the proposed project, without implementation of the project, and
- The 'do-something' scenario - National Highways' operation and maintenance forecast costs for the area affected by the proposed project, with the project implemented.

The CLS is derived from the incremental difference between the 'do-something' scenario and the 'do-minimum' scenario. Consistent assumptions will be used for the basis of 'do-minimum' and 'do-something' estimates.

6.2. Appraisal Period

For standard carriageway works, the future operation and maintenance costs for the do-minimum and do-something scenarios are estimated over a default appraisal period of 60 years from the project opening for traffic.

Where projects include substantial assets with design lives in excess of 60 years, such as structures (bridges), a longer appraisal period will be used, typically 120 -150 years for projects including major structures or long-term strategic assets. The rationale for the appraisal period will be provided to the project Promoter.

Where assets have been constructed to serve a development and are intended to have less than 60 years life, the expected life of the development may be used as the appraisal period. In such circumstances, the assessment period must be agreed with National Highways at an early stage of the project.

6.3. Coverage of Future Operation and Maintenance Costs

The scope of CLS is to cover all future operation and maintenance costs within the appraisal period, including:

- Routine (Annual/Cyclic) operation and maintenance requirements, as set out in GM 701 - Asset Delivery Asset Maintenance Requirements (ADAMR),
- Inspection management of motorway and all-purpose trunk roads and associated assets, as set out in GS 801 - Asset Delivery Asset Inspection Requirements,
- Incident Response Operational Requirement, as set out in GM 703 - Operational Requirements for Incident Management,
- Severe Weather Operational Requirement, as set out in GM 704 - Operational Requirements for Severe Weather,
- Maintenance of tunnels on the motorway and all-purpose trunk road network, as set out in CM 430 Maintenance of Road Tunnels,
- Inspection and reporting requirements for highway structures on motorway and all-purpose trunk roads, as set out in CS 450 Inspection of Highway Structures,

- All other relevant DMRB guidance for the operation, maintenance and inspection of motorway and all-purpose trunk roads and associated assets,
- Periodic asset renewals,
- Management and systems overheads,
- Estates and premises – for most third-party led projects, it is assumed that the additional operation and maintenance burden can be serviced without additional estates and premises facilities, however substantial projects may require additional depot or other facilities, and
- End-of-life decommissioning and disposal – it is generally assumed that the additional assets created by a third-party project will not be decommissioned within the appraisal period, however costs will be included in the CLS calculation if this is not the case.

6.4. Overview of Calculation Methodology

For each scenario, assets will be quantified from verified design information.

Routine operation and maintenance items for each asset will be scheduled using the activities defined and priced in the relevant Maintenance and Response Contract and the intervention frequencies (i.e. annual frequency) contained in the Maintenance and Response Contract documents.

The quantity of periodic asset renewals required in each year of the appraisal period will be calculated from:

- The quantity of each asset taken-off from verified design information,
- Assigning a renewal frequency for each asset – National Highways has a standard set of default renewal frequencies for common works, a bespoke assessment may be made for substantial and / or complex assets, and
- An assumed residual life of existing assets – in the absence of other information, it is assumed that existing assets will be at the mid-point of their lifecycle at the start of the appraisal period. Specific assessment for residual life of existing assets may be required, if this assessment is not available and the assumed mid-point cannot be used.

Third-party projects may result in betterment of the existing assets. For example, the construction of the project may include resurfacing of existing carriageways with aged pavements, that otherwise we would have had to renew imminently. This betterment will be captured through the reduced asset renewals that would be required within the appraisal period in the 'do-something' scenario compared with the 'do-minimum' baseline.

Third-party projects may improve or hinder the ease of operation and maintenance of existing assets. For example, a project that converts a single carriageway to a dual carriageway could result in easier traffic management for operation and maintenance works; a project that removes a hard-shoulder or reduces available space for operation and maintenance will reduce productivity and increase costs. Other examples could be where we may need to add more capacity to our Traffic Officer services or add more depots to extend the coverage of operations and maintenance for the increased length of SRN.

An assessment will be made of such impacts in the 'do-something' scenario so that these cost impacts are included in the CLS calculation.

CLS calculations may include a risk allowance to reflect uncertainty within the Promoter's proposed scope and specification and consequent risk to the cost of operation and maintenance works. Risk allowances will be set out and will be consistent with the level of risk allowances, included in National Highways' operation and maintenance cost estimates.

Where the project is to take place on a part of the SRN which is managed by a Design Build Finance Operate (DBFO) Contract, the DBFO Company will provide these costs in line with their contractual and commercial arrangements with National Highways. Depending on the remaining duration of the DBFO contract, we will include forecast costs for the remainder of the CLS period.

6.4.1. Rate basis

Operation and maintenance works will be estimated in real terms at a set price base, using consistent rates for both scenarios and estimated expenditure profiled across each year in the appraisal period.

Rates for standard works are based on the National Highways' current rate libraries. A bespoke pricing exercise may be carried out for substantial and / or complex works.

CLS calculations may include a risk allowance consistent with the level of risk allowances included in National Highways' operation and maintenance cost estimates.

6.4.2. Relative price effect and discounting

The CLS estimates include an assessment of relative price effect, i.e. the movement of a specific price index (e.g. highways construction) differing significantly from general inflation. Relative price effect factors are calculated for each year of the appraisal period.

Discounting is then applied to real terms estimated costs to produce a net present value cost for the CLS. Discount rates will be reviewed and confirmed by National Highways for the CLS.

The net present value is calculated as follows:

$$\text{Net present value} = \sum \frac{M_p}{(1+D/100)^T}, \text{ where}$$

M_p = Estimated future maintenance cost T years from start of appraisal period

D = Discount rate (%)

T = Time period before expenditure will be incurred (years)

6.4.3. Worked Example

The calculation below is a simplified example to help understand the calculations. Any figures used in this example are purely indicative and should not be construed or interpreted as those which will be used in any CLS calculation.

The table below, which is the annual estimated routine operations and maintenance and periodic renewal costs, will be produced for both the 'do-minimum' and 'do-something' scenarios for the relevant CLS assessment period.

The assets included within the CLS assessment, associated intervention/periodic renewal frequencies and rate data will vary depending on the features of the project proposals and location of the project.

Relative price growth and discounting will be applied to the un-escalated estimated costs for each scenario using consistent assumptions.

The CLS payable by the Promoter is derived from the incremental difference between the two scenarios.

Appendix A – Guidance on cost drivers in maintenance and renewals

This appendix is intended to provide Promoters with high level guidance of maintenance and renewal cost drivers and an indicative level of the associated costs. These are suitable for early stages of project development and optioneering.

In addition to the information in the table below there are several aspects that a Promoter should consider that will affect CLS:

- Design for whole life cost – considering the full lifecycle of the asset will enable the most overall cost-efficient solution to be developed,
- The design life of standard products/designs are well understood and thus enable accurate calculation of CLS,
- Calculation of CLS involving novel/innovative products/designs could take longer and include more assumptions as they will not be as well understood as standard options; this may result in a conservative maintenance regime being included and hence a higher CLS.

National Highways
Cost Estimating Team

Commuted Lump Sum (CLS) Commercial Assessment Details

Typical Periodic Renewal CLS Asset Details	UoM	Periodic Renewal Rate (Q1 2023 prices)	Renewal Frequency (Years)
Pavement - surface course	m2	£ 14.60	10
Pavement - binder and surface course	m2	£ 28.44	30
RRS	m	£ 88.47	30
Road Lighting	num	£ 192.26	30
Kerbing	m	£ 27.20	20
Footway	m2	£ 17.39	20
Pedestrian barrier	m	£ 171.47	30
Illuminated Traffic Signs	num	£ 724.89	15 - sign face 30 - posts
Road Markings - Intermittent lines	m	£ 1.03	10
Road Markings - Rib lines	m	£ 2.45	10
Road Studs	num	£ 6.69	10
Boundary Timber Post and Rail Fencing	m	£ 24.32	30
Noise Barrier	m	£ 193.93	30
Typical Routine Maintenance CLS Asset Details	UoM	Routine Maintenance Rate (Q1 2023 prices)	
Routine Maintenance	m2	£ 1.53	

Non-standard assets - assessed on a scheme-by-scheme basis for CLS

- Structures e.g. bridges, retaining walls, masts, gantries etc.
- Highways ITS e.g. VMS, AMIs, SVD, MIDAS etc.
- Traffic signals
- Bespoke drainage e.g. pumping stations, PCDs, vortex separators etc.
- Bespoke landscaping/environmental areas
- Pavement e.g. concrete pavements
- High mast lighting columns
- Tunnels including M&E

Exclusions for rates provided above

- Risk and uncertainty
- Inflation from 2023 price base
- Discounting and relative price growth

Caveats

- The rates provided are for high level guidance only. National Highways reserve the right to use revised maintenance and renewal rates based on scheme specific considerations.
- National Highways are in the process of updating the CLS rates to reflect the latest operation, maintenance and renewal intervention frequencies and associated rates. The published rates will be revised upon completion of this task
- The provided rates do not consider site specific considerations (e.g. regional cost differences or site specific TTM considerations)
- The rates are not applicable to parts of the SRN operated by DBFO contracts

Appendix B – Information required to prepare a commuted lump sum estimate

The following information is required to be provided by the Promoter to enable us to produce a CLS estimate:

1. General arrangement drawings of the existing and the proposed project, at a sufficient level of detail to allow the proposed work to be quantified to a reasonable level of accuracy. Key items include:
 - Identification of extent of highway which National Highways will assume operation and maintenance responsibility
 - Identification of new and renewed pavement surfaces
2. Detailed drawings/schedules (if available at this stage)
 - E.g. drainage schedules, road restraint systems, signage landscaping/environmental details, technology assets
3. Drawings/schedule of structures
 - Type of bridges (steel, composite etc.), number of piers, deck area etc.
 - Type of retaining wall (gabions, sheet piles, contiguous piles etc.), length and retained height
 - Agreement of the assumed operation and maintenance responsibility for each structure (e.g. will National Highways assume all operation and maintenance duties, or will the Promoter assume some operation and maintenance duties)
4. Timeline for all stages of the project including open for traffic date, and
5. Life of the development where the time period is less than 60 years.

It is recognised that not all information will be available in the earlier stages of project development. The Promoter should provide all the above that is available to us at each stage of development when seeking a CLS calculation. The relevant information for each stage is to be agreed with our Commercial Estimating Team. Where information is not available, appropriate assumptions will be made and documented with the estimate so that all parties understand the basis on which the estimate has been produced.