

SGN

RIIO-GD2 Specified Streetworks Reopener

September 2024

Classification: Confidential

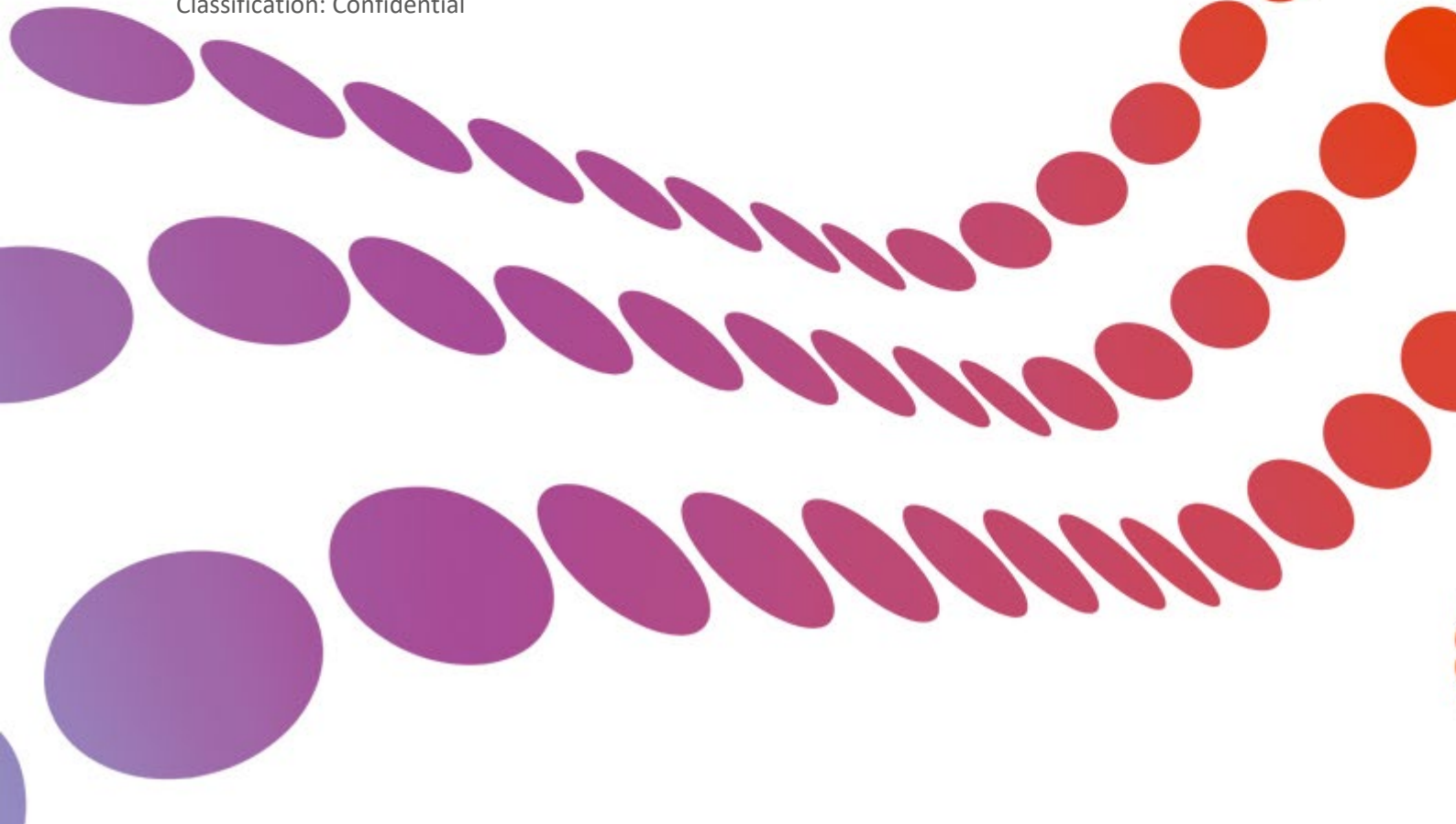


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1. Executive Summary

This document constitutes SGN's application in relation to the Specified Streetworks Costs Re-opener, in accordance with Special Condition 3.24 of our Gas Transporter Licence.

The claim relates to our Southern network, covering forecast and actual costs incurred in the GD2 period, in relation to new or additional requirements under existing streetworks schemes, and additional highway authorities implementing new schemes.

Figure 1 - Total Re-Opener Claim Value

Description	Actual and Forecast Costs (£m, total, 18/19 prices)
Lane Rental	11.43
Ultra Low Emission Zone	0.88
Manual Traffic Attendance	2.64
Total Re-opener Claim	£14.96

As shown in Figure 1, our total claim is calculated as £14.96m, in 18/19 prices. This value excludes £5.8m lane rental in relation to Kent County Council and Transport for London which was included in SGN's GD2 Business Plan Business Plan Data Templates (BPDTs).

No claim is being submitted in relation to our Scotland network, as we do not anticipate that actual and forecast costs will meet the re-opener threshold¹.

¹ Materiality thresholds as defined in Special Condition, 1.1 Part A, Southern Gas Networks: £6.11m, Scotland Gas Networks: £2.99m

2. Purpose and scope of this document

In accordance with the SGN Southern Licence Special Condition 3.24, we are applying to the Authority for an adjustment to costs incurred in relation to Specified Streetworks.

As part of the Final GD2 determination, licence condition 3.24 was set in relation to streetworks, with the objective of calculating the STWt (Specified Streetworks Costs Re-opener term) which contributes to the Totex Allowance calculation. This condition establishes a Re-opener triggered by either the licensee or the Authority, in the event that new charges and/or requirements arise.

As set out in the special condition, the licensee can seek a direction from the Authority for adjusting the value of the STWt term within the Price Control Period, specifically in relation to:

3.24.4 “...Specified Streetworks Costs”, which...

3.24.7 “...relate to permit schemes, lane rental schemes or requirements that have been imposed or are expected to be imposed on or after 1 April 2021.”

This document is a submission relating to our Southern network. A submission is not being made in relation to our Scotland network, as we do not consider that the materiality threshold of £2.99m², will be met.

This document details our proposed re-opener claim value and demonstrates the detailed methodology and inputs used to calculate and validate our claim. All values are given in 18/19 values for costs which have been and will be incurred during GD2. Inflation is not applied, and therefore future years within the forecasts may appear as slight cost reductions, where all other factors (such as workload and charge rate) are consistent.

This submission has been prepared in line with the Re-opener Guidance and Applications Requirement Guidance document and has been through appropriate internal assurance to ensure accuracy, completeness, conciseness, and clarity. This submission has been reviewed and approved by the SGN Executive Team and the SGN Chief Operations Office.

This document sets out the re-opener submission using the following structure:

Figure 2 - Structure of Re-opener Submission

Section	Header	Synopsis
1	Executive Summary	Brief Summary of this re-opener application
2	Purpose and Scope of this Document	Sets out the purpose we are looking to achieve in this application, and the scope of the re-opener as defined by our Gas Transporter Licence
3	Needs Case	Sets out the legislative background, GDN agreed interpretation, and SGN-specific background
4	Options Assessment	Assessment of the possible approaches to streetworks costs, including identification of the recommended option
5	Forecasting Streetworks Costs	Sets out the steps taken to predict streetworks costs in relation to schemes implemented in GD2
6	Mitigating Streetworks Costs	Sets out the mitigation steps which can be taken in relation to avoiding streetworks costs
7	Assessing the Claim Value	Sets out our methodology, assumptions and claim value
8	Conclusion	Closing remarks

² As defined in the Special Condition

3. Needs Case

In the section below we set out the context of the re-opener as it applies within existing legislation and the SGN-specific context in terms of increased requirements imposed by Local Authorities within our Southern network.

Re-opener Context and Scope

SGN understands the Specified Streetworks Re-opener to apply to costs incurred in two eligibility categories;

- New or additional requirements under existing schemes: for example, extending the area to which a scheme applies, or an increase in costs charged under an existing scheme; and
- Additional highway authorities implementing new streetworks schemes.

As the streetworks legislation applies to all relevant operations, the re-opener claim covers costs incurred across emergency, repair, maintenance, replacement and connections works, and covers the full duration of our works up to and including reinstatement.

The terms 'streetworks' and 'schemes' are used interchangeably within this submission document and apply as defined above.

While permit breaches can be chargeable via a fixed penalty notice, we have not included these costs in our re-opener submission as these costs were removed during the GD2 business plan assessment process.

Joint GDN Application of Streetworks Requirements

Collaborative discussions have taken place between the Gas Distribution Networks (GDNs) to ensure a consistent interpretation of the streetworks guidance. This approach has enabled us to ensure consistent working practices, assist Ofgem in their network performance comparisons, and also to ensure a standardised approach across the industry. A common approach to the coverage of costs within the re-opener as set out under the licence is therefore as follows:

Within Scope

Lane rental³

- Highway Authorities are able to charge up to £2,500 per day for streetworks on the busiest roads at the busiest times.

London Ultra Low Emissions Zone⁴ (ULEZ)

- Defined as the zone in which an emissions-based charge is levied against non-compliant vehicles.
- London-specific - introduced to cover Central London in May 2020, with a subsequent expansion to include Inner London in October 2021 and Outer London in August 2023.

Manual Operation of Portable Traffic Signals

- While portable traffic signals are a known requirement, highway authorities are increasingly imposing permit conditions to require manual, rather than automated, operation of traffic lights at peak times, generally outside of normal working hours/weekends and late/early working. This is a behavioural change, observed across several GDNs, which could not have been predicted before GD2.
- This has a productivity cost due to the time an operative spends managing the signalling.
- This incremental cost is therefore eligible under this re-opener claim, as it constitutes a new requirement beyond those specified at the start of the price control.

³ Part III, 74A, [New Roads and Street Works Act 1991 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

⁴ [Ultra Low Emission Zone - Transport for London \(tfl.gov.uk\)](https://www.tfl.gov.uk)

In this re-opener, where we refer to ‘components’ of the claim submission, we are referring to any or all of the above in-scope charge types, i.e. lane rental, ULEZ or the incremental costs of manual attendance at traffic lights.

Out of Scope

Hazardous Waste Disposal

- Requirements in relation to assessing, validating and, therefore, moving waste from an excavation site as ‘non-hazardous’.

This guidance was withdrawn in April 2023, and we do not anticipate an update until 2025/2026, therefore it is out of the scope of the re-opener and not included in our claim.

Legislative Context

The following legislation applies to all relevant organisations, for example, telecoms, in addition to utilities.

The New Roads and Streetworks Act (NRSWA)⁵ defines the applications and arrangements required by any organisation undertaking activities in “48(1)(a) any highway, road, lane, footway, alley or passage”.

These ‘streetworks’ are defined as;

“48(3)...work of any of the following kinds...executed in a street in pursuance of a statutory right or a streetworks licence-

- (a) Placing apparatus, or
- (b) Inspecting, maintaining, adjusting, replacing, altering or renewing apparatus, changing the position of apparatus or removing it,

or works required for or incidental to any such works (including, in particular, breaking up or opening the street, or any sewer, drain or tunnel under it, or tunnelling or boring under the street)”

The NRSWA also defines that;

“48(3A)...the works that are streetworks by virtue of being works required for or incidental to streetworks of any particular kind include –

- (a) Reinstatement of the street”.

The streetworks requirements, therefore, apply in relation to our end-to-end operational activities and beyond. In practical terms, they commence at the point where we bring operational equipment to the site in question, continue throughout any activity and repair work and conclude once we have restored the street to its original condition.

Streetworks are comprised of multiple requirements, the application of which varies depending on the type of work and area in which it is being undertaken. Streetworks requirements are defined on a job-by-job basis, with the conditions to which operators must adhere being set out in the relevant permit. The scope of streetworks in relation to this re-opener application is defined above and discussed in more detail below, however, the relevant legislative definitions are as follows:

Lane Rental

Section 74A of the NRSWA requires operators to pay a daily charge for occupation of the highway while undertaking work, known as ‘lane rental’⁶. Exemptions apply in certain circumstances⁷, for example, if work is

⁵ Part III, Streetworks in England and Wales [New Roads and Street Works Act 1991 \(legislation.gov.uk\)](https://www.legislation.gov.uk/ukpga/1991/36/part_III)

⁶ NRSWA 10.1

⁷ NRSWA 10.3

taking place in non-traffic-sensitive streets, or where the work itself is not material, for example the drilling of bar holes.

Lane rental applies for a “prescribed period”⁸, set at two days, plus a “reasonable period”⁹ agreed between the operator and highway authority, beyond which operators are eligible for fines in relation to “unreasonably prolonged occupation of the highway”¹⁰.

Lane rental requirements apply throughout the full duration of our operations, ceasing only once reinstatement of the street has been completed.

The Traffic Management Permit Scheme (England) Regulations 2007¹¹ define the permits, including conditions, for which any organisation undertaking streetworks must apply;

“Part 3, 10, (2) Without prejudice to the generality of paragraph (1), the types of condition which the Permit Authority may attach to permits under that paragraph include conditions relating to—

- (a) days on which permit works may not be carried out;
- (b) times of day during which permit works may not be carried out;
- (c) the area (including areas not forming part of the street) which may be occupied in connection with the permit works;
- (d) the prohibition or restriction of traffic pursuant to orders or notices under section 14 of the Road Traffic Regulation Act 1984 (temporary prohibition or restriction on roads) (1);
- (e) traffic management arrangements to be made in connection with the permit works (including arrangements for the particular benefit of persons with a disability);
- (f) the manner in which the specified works are to be carried out;
- (g) consultation and publicity in relation to the specified works, including the display of information at the location of those works; and
- (h) notification of progress in relation to the specified works.”

The conditions of these permits are further defined in the Department for Transport’s Statutory Guidance for Highway Authorities, in Conditions NCT01 to NCT13, which set out, amongst others;

- Restrictions on the times of day during which streetworks can take place (NCT02a), the hours in which operatives can be present working (NCT02b), and the times during which certain activities can happen (NCT12a),
- Restrictions on the width and/or length of road space which can be occupied (NCT05a), and the space which must be available to traffic and/or pedestrians at certain times (NCT06a),

The Regulations and Guidance above define the times of day during which work may or may not be carried out to assist in traffic management and minimise physical and noise disruption. However, any restriction on the number of workable hours may result in the work taking an increased number of days and, therefore, lane rental charges would be incurred over a longer overall period.

Ultra Low Emissions Zones (ULEZ)

In section 295 of the Greater London Authority Act 1999¹², it is set out that;

“(1)(a)...Transport for London...

⁸ NRSWA 10.4

⁹ NRSWA 10.5

¹⁰ NRSWA 10.2

¹¹ [The Traffic Management Permit Scheme \(England\) Regulations 2007 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

¹² [Greater London Authority Act 1999 \(legislation.gov.uk\)](https://www.legislation.gov.uk)

May establish and operate schemes for imposing charges in respect of the keeping or use of motor vehicles on roads in its area”.

Under this legislation, the ULEZ¹³ charging is enforced, to apply charges to any vehicles which do not meet the defined low emissions standard¹⁴.

Manual Operation of Portable Traffic Signals

The Traffic Management Permit Scheme (England) Regulations 2007, referenced above, specify the requirement for “traffic management arrangements”, which are defined in the Regulations to include;

“Part 3, 10 (5)...signs, signals, road markings, barriers and other measures which are intended to secure the expeditious, convenient and safe movement of vehicular and other traffic (including pedestrians)”.

This requirement is further supported by the Department for Transport’s Statutory Guidance, also referenced above, which states:

“The requirement for traffic management (NCT08a), and in some cases, manual traffic management (NCT08b).”

Therefore, under the terms of the above legislation, in the event that the Highway Authority requests it, SGN must make provisions for traffic light signalling to be manually operated, rather than using automated equipment. As discussed, there has been an observable behavioural change (demonstrated later in this submission) across many of the GDN footprints of an increased requirement for manual, over automated, signals. This incurs costs due to both the cost of the equipment and, also, the relative lost productivity time of the operative undertaking the signalling which, as discussed, often occurs at peak times outside of standard working hours. This materialises in the form of additional resources required to ‘back fill’ the on-site activities, and the need to swap the existing team out with a new team if the former has reached the end of their working period while the requirement for manual signalling is still in place.

Penalties and Fines

Lastly, the above Guidance also sets out that;

- It is “a criminal offence for an undertaker, or someone acting on its behalf, to undertake works without a permit”¹⁵ and;
- That it is “a criminal offence for an undertaker or someone acting on its behalf to undertake works in breach of any permit condition”¹⁶.
- In addition to prosecution, fixed penalty notices can be applied in both cases.

The Guidance is specific in that work cannot be undertaken without the appropriate permits and that, in the absence of the appropriate permits, criminal prosecution and financial penalties can occur. Furthermore, penalties can also be enforced in the event that the work duration exceeds the number of days for which the permit applies.

The costs associated with fines and penalties are not included in this re-opener claim as they were removed during the GD2 business plan assessment process. While there is a principle that they are theoretically avoidable, in practice this can be much more challenging and can be caused by conditions out of the operator’s control. As such, while they are not the subject of this re-opener document, we do consider the cost of fines and penalties as an area for discussion during the GD3 business planning process.

¹³ [Ultra Low Emission Zone - Transport for London \(tfl.gov.uk\)](https://tfl.gov.uk)

¹⁴ [Your vehicle and LEZ - Transport for London \(tfl.gov.uk\)](https://tfl.gov.uk)

¹⁵ Regulation 19: 2.10

¹⁶ Regulation 20: 2.13

Permitting and Future Schemes

Now known as ‘permits’ the above conditions used to be termed ‘noticing’, The Lane Rental Guidance states that;

“Authorities must already have in place a permit scheme and will need to provide evidence, including data about its network, to demonstrate that the permit scheme has been operating effectively.”¹⁷

This Guidance specifies that provided a highway authority has been running a permit scheme for a minimum of 6 months they may then subsequently apply to implement lane rental charges. All 36 local authorities have completed their permitting period and, therefore, in theory, could begin implementing lane rental. This re-opener claim covers costs associated with those highway authorities who have already implemented schemes or those for which we have a high degree of confidence that they intend to do so, within the GD2 period.

SGN-specific Context

While the re-opener applies to costs incurred in the GD2 period, there is an overlap with GD1 in that certain schemes were implemented before the GD2 price control period, but after the GD2 business plan had been submitted. Our GD2 business plan data templates (BPTDs) included £5.8m (18/19 prices) in relation to lane rental in Kent County Council and Transport for London (TFL), a value which has been excluded from the total £14.96 submitted as this re-opener claim. As per the licence, this re-opener claim relates solely to costs incurred on or after 1st April 2021.

The above in-scope claim components apply in SGN’s Southern network as follows:

Lane Rental

Within SGN’s Southern network, there are currently four highway authorities who have already implemented, plus two who are planning to implement, lane rental schemes, before the end of the GD2 period. Those authorities are:

- Kent County Council: implemented 2019/2020 financial year
- Surrey County Council: implemented 2021/2022 financial year
- Transport for London: implemented 2021/2022 financial year
- West Sussex County Council: implemented May 2024
- Oxford County Council: anticipated April 2025
- Lambeth Council: anticipated April 2025

The impact of these costs, included in this claim, is shown in Figure 3 below.

¹⁷ [Lane rental schemes: guidance for English highway authorities - GOV.UK \(www.gov.uk\)](https://www.gov.uk/guidance/lane-rental-schemes)

Figure 3 - Lane Rental Charges from 2018/2019

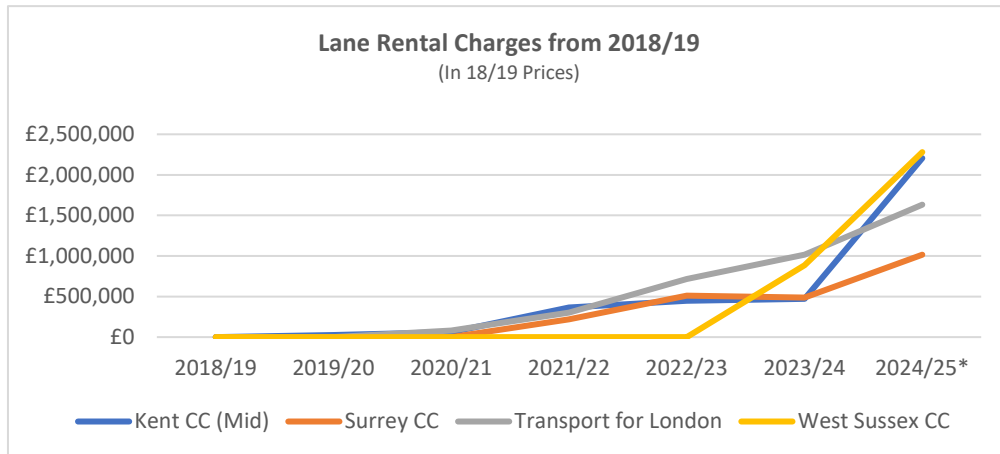


Figure 3 demonstrates a trend across the GD2 period of lane rental charges increasing, both in terms of frequency (the number of highway authorities implementing schemes) and expenditure.

A further three highway authorities within the SGN Southern network area have considered schemes but have not confirmed they intend to implement, namely:

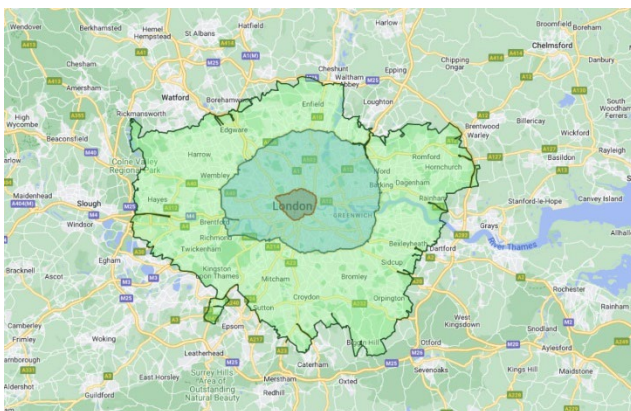
- Hampshire County Council
- Southampton County Council
- Portsmouth County Council

As such, we have not forecast any costs in relation to the above three highway authorities in this re-opener, as we considered that to do so would be to include low-confidence costs, which would compromise the integrity of this claim. As such, should the above highway authorities amend their views and implement schemes, this would be unfunded from SGN’s perspective.

Ultra Low Emissions Zones (ULEZ)

As above, London’s ULEZ scheme was implemented in 2020, with expansions in 2021 and 2023, and now covers all 32 London boroughs, as shown in Figure 4, below.

Figure 4 - ULEZ Map¹⁸

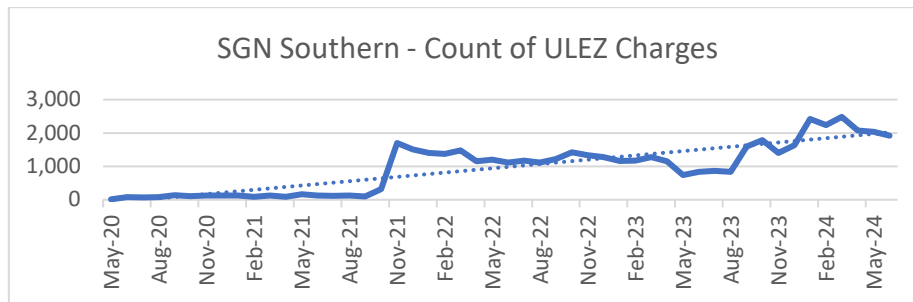


The geographic footprint of the scheme now covers the full inner and outer London areas.

¹⁸ [ULEZ Expansion 2023/24 - Latest News & Zone Map | Motorway](#)

Figure 5 below demonstrates the number of ULEZ charges incurred in our Southern network since the scheme’s implementation.

Figure 5 - Count of ULEZ Charges



ULEZ charge levels are primarily driven by three elements:

- Geographic coverage – the areas of our network which are covered by ULEZ;
- Workloads – dictating the activities we undertake within the zones, which includes an element of seasonality particularly in relation to emergencies, where workloads are higher in winter, and;
- Vehicle specification – the degree to which our fleet is compliant or non-compliant with ULEZ standards.

Figure 5 above shows significant step changes in October 2021 and August 2023 at the point of the inner and outer expansions, which naturally resulted in a greater proportion of our operations falling within the scheme area. Despite this, a downward trajectory can be seen in certain periods, particularly between March 2022 to September 2023, and March 2024 to present. An element of this may be seasonally driven, as our emergency activities tend to be relatively lower in the summer periods, however, the bulk of this reduction in the number of charges demonstrates the impact of our fleet optimisation strategy, discussed later in this paper, which centres around the replacement of non-ULEZ-compliant vehicles with compliant counterparts. While this strategy is driving a visible reduction in the number of ULEZ charges incurred, Figure 5 demonstrates that the extension of the charging zones ultimately mitigates any seasonally-driven periodic reductions and fleet optimisation benefits, with the number of charges incurred generally trending upwards.

Manual Operation of Portable Traffic Signals

Streetworks requirements apply in relation to both manual and automated traffic lights, where partial or complete occupation of a lane results in traffic disruption in a sufficiently busy area to require proactive management. We are increasingly seeing highway authorities across all GDNs require a higher proportion of manual attendance at traffic lights.

Manual operation of traffic lights incurs costs in two categories;

- Equipment costs, and
- Incremental resourcing impacts due to lost productive time and increased resourcing requirements as a result of an operative spending time running the signalling.

Manual attendance at traffic lights is often required at peak times outside of normal working hours. This results in extended working times, for example at the beginning or end of the day, during which we need to ensure that the onsite work is adequately resourced (effectively ‘backfilling’ the operative who is undertaking the signalling activities) and can also result in replacement resources being required if the original on-site team has reached the end of their working period. This backfilling and switching of teams would not necessarily have been required if the permit had not stipulated the traffic light arrangements.

As such, we have experienced an increase in expenditure from 2023 specific to manual operation of traffic lights, which was not anticipated and could not have been forecasted before the price control began.

Figure 6 - Proportion of Permits requiring Manual Traffic Light Attendance

Proportion of Permits requiring Manual Traffic Light Attendance					
Permit Details	Metric	21/22	22/23	23/24	Total
All Applications	Total number	32,359	31,222	31,685	95,266
Applications requiring manual attendance	Total number	1,757	2,091	2,153	6,001
	%	5.40%	6.70%	6.80%	6.30%

Figure 6 above shows the number of permits which require manual traffic light attendance, as a proportion of the total permits requested¹⁹, over the first three financial years of GD2. As described above, at a total level we see an overall increasing trend, meaning that the relative cost of streetworks is correspondingly increasing as a result of the more specific and resource-intensive requirement.

¹⁹ Total permits requested within SGN Southern network, covering all streetworks schemes

4. Options Assessment

As a consequence of streetworks schemes being applied within SGN's network, a variety of options are available in terms of approaching the associated costs. These options vary based on the relative appetite to mitigate costs and the viability of the operational approach required to do so. Each of these options is assessed below, with a consequent recommendation made.

Option 1: Do Nothing

As streetworks costs are mandatory, there is a logical Do Nothing option, whereby SGN could opt not to operate in any areas which fall within a streetworks scheme.

However, as SGN operates as a regulated entity under licence from Ofgem, it is not an option to cease undertaking activities which fall within a streetworks scheme, as this would result in a breach of our Licence Conditions. For example:

When SGN receives a call from a customer to the National Gas Emergency Service²⁰, the provision of which is required under our Standard Licence Conditions, we are required to attend the premises and to do so within specified timescales, depending on the nature of the call²¹.

Should we establish, through the identification of a gas escape, that an asset requires repair, we are obligated to do so under our responsibilities requirement to operate and maintain a safe and reliable network.

Similarly, our maintenance programme in respect of all gas assets is designed to ensure delivery of the above same responsibilities.

As such, to opt not to operate – either attending a gas escape or undertaking maintenance and/or repair activities due to the location falling within a streetworks scheme - would place SGN in breach of its Gas Transporter Licence conditions.

While the Do Nothing approach is the most ambitious in terms of mitigating streetworks costs, due to it being legislatively, and therefore operationally, unviable, it is dismissed as an option.

Option 2: Incur Costs without Adaptation

As we have established that SGN must continue to operate even within the parameters of streetworks, as an alternative approach, we could do so irrespective of the streetworks schemes in place.

The location of our assets drives our activities and, therefore, if a scheme applies in a certain area, undertaking our responsibilities to manage our network in that area cannot be avoided. Furthermore, as many elements of streetworks relate to the safety of road users, pedestrians, and our operatives, the requirements themselves must always be undertaken from a regulatory but also moral perspective.

This option would result in SGN incurring streetworks costs without adaption, i.e., without taking any measures to mitigate the costs incurred. This would mean planning our operations in relation to emergencies, repair and maintenance as if no streetworks charges applied and being non-specific in the vehicles used in our London network, irrespective of ULEZ charges.

While Option 2 is the least operationally complex, we do not consider it representative of a good faith option, as knowingly incurring expenditure without considering any mitigation does not reflect our strategic commitment to providing customers with good value by managing our assets efficiently.

²⁰ Condition 6: [Gas Transporter Standard Licence Conditions 08 04 2021 \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/gas-transporter-standard-licence-conditions-08-04-2021)

²¹ Uncontrolled gas escape: within 1 hour, Controlled gas escape: 2 hours. D10, Quality of Service Standards, (h)(i)(a) and (b), p10 [Standard Special Conditions - PART D Consolidated - 01 09 2021 \(ofgem.gov.uk\)](https://www.ofgem.gov.uk/standard-special-conditions-part-d-consolidated-01-09-2021)

While Without-Adaptation represents the most operationally straightforward option, it does not demonstrate any ambition to mitigate the streetworks costs incurred and, therefore, it is dismissed as an option.

Option 3: Incur Costs with Adaptation

The final variation considered is the option to operate in acknowledgement of streetworks schemes, seeking to mitigate their impacts and costs as much as possible while delivering our regulatory requirements, by adapting our operational strategy. Practical examples of this approach are:

Collaborative Streetworks: Seeking opportunities to coordinate work with other operators.

This approach is preferable from a disruption and environmental perspective and reduces costs to the operator and the highway user.

For example, coordinated excavation reduces operational expenditure for both organisations in terms of access to assets and remediation, in addition to the associated safety and traffic management measures required. Furthermore, certain highway authorities offer a reduction in charges to each operator in the event of collaborative works.

Fleet Optimisation: Minimising the impact of non-compliant vehicles through intelligent fleet management.

This approach involves ensuring that as many compliant vehicles as possible operate within the ULEZ area and relocating as many non-compliant vehicles outside of the ULEZ boundary. Furthermore, the vehicle replacement programme could be designed around gradually eroding the population of non-compliant vehicles as they come up for renewal.

Stakeholder Engagement on Best Practice: Sharing understanding and experience to seek mutually beneficial outcomes.

Wherever possible, seeking to work with highway authorities to share knowledge which can reduce the impact and cost of our streetworks. For example, as shown in Figure 6, through the first three years of GD2 we have observed an increase in the number of permits specifically requiring manually-operated, rather than automated, traffic lights. Anecdotally, we understand that this is primarily driven by road users typically providing better feedback regarding their experience of a streetworks disruption when there is an operative visibly managing the signalling. However, data demonstrates that traffic flow, and therefore the relative levels of both disruption and environmental impacts such as emissions and noise, are improved by the use of smart lights over the manual equivalent. Smart lights can monitor the traffic volume across the impacted streetworks area, and automatically adjust the signals accordingly – for example, holding one set of lights on green for longer if there is a substantial queue of traffic. The use of automated traffic lights serves to free up the operative who would otherwise be operating the signalling, reducing the overall resourcing costs of the work and serves as an example where observable data can drive best practice and maximise efficient delivery.

Option 3 represents a good balance between delivering our operational requirements in line with our regulatory obligations while retaining an ambitious approach towards mitigating streetworks costs. It is therefore our recommended delivery option.

5. Project Delivery

To best deliver in line with the Adaptation strategy reflected in Option 3 above, SGN manages its streetworks processes through a combination of regional depot management and central team oversight.

As workloads are the ultimate driver of permitting requirements, planning begins at depot level, where the managers and operatives are best placed to understand the local requirements and impacts of the required operations. As part of this process, the relevant applications are made, and the permits are acquired. This is a localised, rather than centralised, process, as our planning activities must be based on information which is as accurate as possible. For example, a regional manager with local understanding is best placed to understand that a certain type of works with a typical duration may be prolonged due to local factors and can then reflect this in the time period requested in the permit. By using local knowledge to match our operational and permit requirements more closely, efficiencies are realised through the avoidance of subsequent unnecessary paperwork and the mitigation of penalties and fines due to work overrunning.

Our centralised streetworks team, based in our Horley office, act as a single point of contact for all highway authorities, reducing the costs incurred by the latter by removing the need to engage with multiple regional stakeholders. The benefits of a centralised team are realised through their experience and capabilities in building relationships with highway authorities to understand their perspective, develop an efficient implementation of their scheme charges and gather intelligence in relation to potential upcoming streetworks schemes. This consistency in knowledge and approach would not be possible if the work were undertaken regionally.

Our central team also undertake a critical management and validation role, engaging with the depots to:

- Validate the streetworks charges received,
- Challenge invoice values, and
- Negotiate discounted streetworks charges on large-scale planned works.

The central team also oversee the timespans of permit applications and raises advanced warnings with the depots as a permit approaches expiry, to establish whether the work is likely to be completed to plan, or whether an extension is required, ultimately to avoid unnecessary overrun penalties.

The activities of the centralised team are further examples of our Adaptation strategy, whereby costs are monitored, managed and minimised as much as possible.

Alignment with Overall Business Strategy and Commitments

In our GD2 business plan, SGN set out our three customer commitments, including a promise to:

“...align with our customers’ priorities that we keep the gas flowing, act safely and keep costs down, we commit to delivering a safe and efficient service.”²²

By ensuring an embedded operational strategy of Adaptation, we can deliver efficiencies against the counterfactual level of legislatively mandated streetworks costs we would otherwise incur. However, as discussed in our Options Assessment, these charges cannot be mitigated in their entirety. Below, we discuss how we have delivered tangible efficiencies in each of the claim components, balanced against the point at which our efforts are restricted by the charges’ inherently unavoidable nature.

Lane Rental – Collaborative Working

Figure 7 below demonstrates the benefits delivered during the first three financial years of GD2 as a result of seeking collaborative opportunities wherever possible. For context, only a small proportion of our operational activities are eligible for Collaborative Streetworks, by definition of the latter requiring advanced planning and

²² A Plan for our Shared Future: RIIO-GD2 Business Plan (09.12.2019), P34

liaison. For example, completion of time-critical repairs requiring immediate remediation would always be prioritised over seeking collaborative opportunities to ensure the safety and security of supply to our customers. However, and as shown, by seeking the opportunities where possible, we are able to mitigate a degree of our costs and deliver financial, environmental and well-being-based benefits to our customers.

Figure 7 - Efficiencies as a result of Collaborative Working



Of particular note, in Figure 7 above, is the Resident Wellbeing and Business Losses, as these metrics quantify the benefits felt by the local community most immediately impacted by the proximate streetworks. Resident Wellbeing is a calculated monetised value to nearby households within a 500m range of the works, while Business Losses is the calculated value of profits lost to businesses within the same range. Had collaborative working opportunities not been sought, the residents would have incurred the equivalent monetised reduction in wellbeing, while local businesses would have been impacted by the calculated loss of profits, both caused by the incurrence of multiple, rather than concurrent, streetworks.

Ultra Low Emissions Zone (ULEZ)

Throughout GD2, SGN’s fleet optimisation strategy has gradually eroded the proportion of non-ULEZ-compliant vehicles in use in our organisation as vehicles reach their replacement lifespan. This ensures that the capital expenditure already invested in non-compliant vehicles is fully realised, as opposed to being prematurely lost by the significant depreciation which would otherwise be seen if we were to wholesale replace all outstanding vehicles straight away. Such a depreciation impact would likely outweigh any financial benefits of ULEZ charge avoidance, and therefore gradual replacement represents a more economically prudent approach.

While non-compliant vehicles remain in the fleet, it is not always possible to avoid their use in a ULEZ area. For example, particularly in relation to our emergency operations, our priority is always to ensure attendance at any potential gas escape as quickly as possible, by the nearest operative and vehicle available.

Despite this, through our fleet optimisation strategy, we have delivered a ~£400k saving (nominal prices) in ULEZ charges since the start of GD2, despite the upward trend in costs created by the zone expansions. Furthermore, these savings are set to increase as, as detailed in the Assumptions section below,

[REDACTED]

Manual Operation of Portable Traffic Signals

As discussed in the Options Assessment, SGN has engaged with highway authorities to demonstrate the relative value of technological developments in relation to automated traffic lights. As such, we have been able to build trust with these crucial stakeholders and begin reducing incremental costs by removing the requirement for manual attendance at traffic lights where possible. The benefits of this strategy have already materialised in an observable reduction in manual traffic light requirements in our East region, where a c.65% reduction has been delivered across four months of GD2 year 3 (23/24).

Figure 8 - Reduction in Costs relating to Manual Operation of Traffic Signals (East Region)

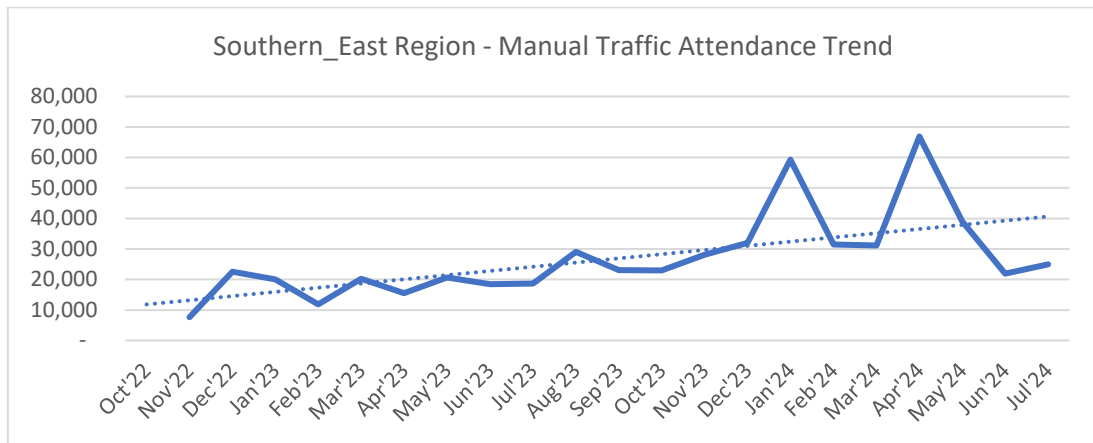


Figure 8 above demonstrates an observable reduction in permits requiring manual traffic lights in our East region, with June 2024 reaching an equivalent level to September 2023. This is a clear indicator of the impact and success which can be realised through our Adaptation strategy. While we will continue to seek opportunities to deliver savings of this kind wherever possible and, as demonstrated in Figure 8, our mitigation actions can soften the cost trend over time, they may not be able to fully reverse an otherwise increasing profile.

6. Assessing the Claim Value

To build a robust and coherent forecast value for this re-opener submission, we have developed a methodology which incorporates principles around existing data, in combination with market intelligence and tested assumptions.

The methodology as a whole is subject to a number of base assumptions, which remain consistent irrespective of the various individual component forecasts under consideration. These base assumptions are as follows, categorised in line with the component costs:

Base Assumptions

Lane Rental

- Despite all Highway Authorities having completed their permitting period and therefore able to implement streetworks, only Oxford and Lambeth County Councils are anticipated to go live in the GD2 period.
- Analysis of charges received indicates that once a scheme is implemented, costs incurred tend to start relatively lower but subsequently increase, due to two potential reasons:
 - Increased charges and/or applicable area,
 - A grace period is typically in place, between 1 and 6 months, to allow organisations to organise and manage their potential charges accordingly.
- Historic workloads have been used to forecast future workloads
- As discussed, the GD2 BPDT figure of £5.8m has been excluded from this claim.

Ultra Low Emissions Zones

- Most vehicles are subject to the £12.50 rate, including vans,
- We do not anticipate any changes to the current ULEZ charge rates, types of vehicles subject to the charges, or criteria for exemption, and

Manual Operation of Portable Traffic Signals

- GD2 shows an increased requirement in comparison to GD1 in relation to manual attendance at traffic lights.

Development of our Forecasting Methodology

Streetworks costs are primarily driven by workloads. Even with our mitigation strategies, ultimately the more frequently, or longer, we are working in a scheme area, the higher costs we will incur.

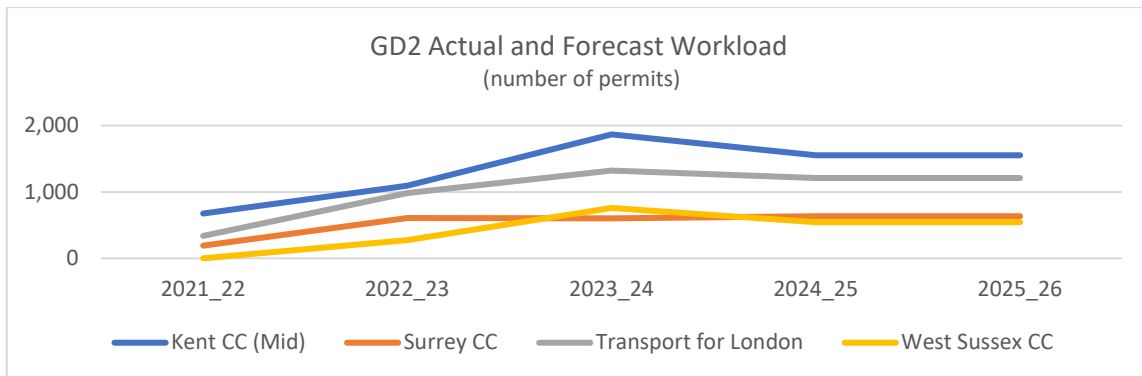
Where actual costs are included in this claim, this is based on the workloads undertaken and the costs incurred.

In relation to future years, we have used historic workloads to forecast future operations. This approach ensures that our forecast is as accurate as possible, as it will inherently reflect real-life factors such as:

- The benefits of our already-embedded operational strategy of Adaptation, whereby opportunities are sought to mitigate streetworks impacts and costs wherever possible,
- Behavioural changes in the highway authorities requiring a greater proportion of permits to include manual operation of traffic lights, which impact our costs and
- The anticipated mix of jobs, more closely reflecting the variable durations and complexity anticipated.

Figure 9 below demonstrates the actual and forecast workloads on which this re-opener claim is based. The data shown relates to the number of permits already incurred, and the future number of permits anticipated to be incurred. We have defined this as our 'base' workloads for the purpose of the following sections.

Figure 9 - GD2 Actual and Forecast Workloads



Assessment and Selection of Forecasting Methodology

Following the establishment of the base workloads, the component costs are calculated. To ensure our claim value is as accurate as possible, a series of forecast options was developed for each component cost, which was subsequently scrutinised and assessed to identify an appropriate forecasting methodology. This process is described in further detail below.

Lane Rental

The main challenge in forecasting lane rental costs is that highway authorities do not consistently apply the same rates and, depending on the road type and impact of works, may charge differing rates up to a maximum of £2,500 per day. The variation of rates which can be applied is shown in Appendix 1. Furthermore, as discussed above in our Options Assessment, discounts are offered, for example, in the event of collaborative working. Lastly, as discussed in the Project Delivery section, we can verify, challenge and, in some scenarios, negotiate, the level of streetworks costs charged in relation to a specific project. As such, we considered that applying a standard maximum day rate to our forecast workloads would not be the most accurate approach as it would not reflect the variability in costs and, as it would not take into account our mitigation strategies, could also create the risk of an over-estimation in the claim.

Instead, we have assessed the most common and average charging rates, to identify a more accurate and likely future day rate, as shown below:

[Redacted]

[Redacted]

By using the average chargeable rate, we can present our claim with a high degree of confidence in its accuracy, as it is based on actual, observable charge rate data. Furthermore, we are able to reduce the potential total value of our claim, as shown in Figure 11 below.

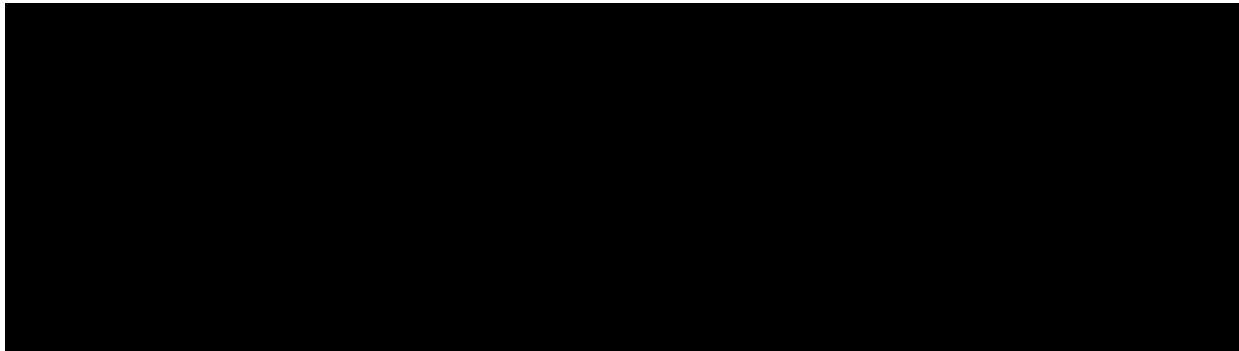


Figure 11 calculates the re-opener value reduction realised by calculating our claim based on the average, rather than maximum, chargeable rate. This reduction is shown in both current (24/25) and GD2 (18/19) prices in the final two columns above - £4.5m and £3.6m respectively.

As such, the use of average chargeable rates was selected as our preferred principle when building our forecast methodology.

The next step in developing our lane rental methodology is to establish the most appropriate number of days against which the charges can be raised. Highway authorities have typically charged lane rental based on working days (Monday to Friday, excluding weekends and bank holidays), however following consultation, Oxford County Council have indicated their intention to begin charging based on calendar days (Monday to Sunday, with only Christmas Day and Boxing Day excluded). Other highway authorities may likely adopt a similar approach.

In Figure 12 below, the relative impact of charging against working days compared to calendar days is quantified as a total average variance of 1%. The conclusion is that, if lane rental charges also include calendar days, then as would be expected this increases the number of chargeable days (by 1%) as it brings previously excluded days into scope.

Figure 12 - Chargeable Days against Working and Calendar Days

% of Chargeable Days / Working Days					
Highway authority	HA/PA	2021_22	2022_23	2023_24	Average
KENT COUNTY COUNCIL	Kent CC (Mid)	2.0%	3.7%	6.0%	3.9%
SURREY COUNTY COUNCIL	Surrey CC	0.9%	3.1%	3.9%	2.6%
TRANSPORT FOR LONDON (TFL)	Transport for London	19.7%	35.4%	46.8%	34.0%
WEST SUSSEX COUNTY COUNCIL	West Sussex CC	0.0%	1.9%	4.3%	2.1%
Total		1.7%	4.4%	6.8%	4.3%

% of Chargeable Days / Calendar Days					
Highway authority	HA/PA	2021_22	2022_23	2023_24	Average
KENT COUNTY COUNCIL	Kent CC (Mid)	1.5%	2.6%	4.3%	2.8%
SURREY COUNTY COUNCIL	Surrey CC	0.6%	2.2%	2.8%	1.9%
TRANSPORT FOR LONDON (TFL)	Transport for London	14.6%	25.4%	33.6%	24.5%
WEST SUSSEX COUNTY COUNCIL	West Sussex CC	0.0%	1.3%	3.1%	1.5%
Total		1.0%	3.6%	5.4%	3.3%

This increase in the proportion of chargeable days is significant, as it will drive increased costs into our streetworks expenditure while restricting our ability to apply strategic mitigations. For example:

If a certain job is expected to have a duration of 7 days to complete, under the working days charging methodology, this comprises five chargeable days (weekdays) and two non-chargeable days (weekend days). Under a calendar days approach, the chargeable days increase to the full seven-day period, driving an increase in our overall streetworks costs.

Furthermore, as per our Adaptation strategy and where possible, we aim to plan our works to minimise both costs and disruption. This can, for example, materialise as weekend rather than weekday working. The benefits of such an approach would be seen in the relatively lower costs incurred (by completing as much work as we can on non-chargeable days) and also in the reduced disruption levels to highway users, as certain streets attract lower usage outside of the standard diurnal weekday commuting and school-run patterns.

As such, the move from weekday to calendar day charging in Oxford, and potentially other highway authorities, is expected to impact our overall costs and limit the degree to which we can mitigate those costs through our Adaptation strategy.

Lane Rental Claim Forecast

Once the workload, chargeable rates, and chargeable days have been established, taken in combination with the known costs incurred to date, we are able to build our forecast for lane rental costs for the GD2 period.

Figure 13 - Total Lane Rental Component of Re-Opener Claim Value

18/19 Prices in £m		Lane Rental				
Highway Authority	2021/22	2022/23	2023/24	2024/25	2025/26*	GD2 Total
Kent County Council						
Surrey County Council						
Transport for London						
West Sussex County Council						
Oxford County Council						
Lambeth Council						
Sub-Total	0.89	1.68	2.86	5.03	6.77	17.23
<i>(Less GD2 Lane Rental BPDT)</i>	<i>(1.18)</i>	<i>(1.17)</i>	<i>(1.16)</i>	<i>(1.15)</i>	<i>(1.14)</i>	<i>(5.80)</i>
Total Lane Rental component of re-opener claim value						11.43

*Forecasts are based on 18/19 prices and exclusive of inflation. As such, where our workload is anticipated to remain generally consistent (such as in Kent County Council in 25/26), this can appear as a slight reduction in costs.

Figure 13 shows the total value of the lane rental component cost included in this re-opener claim and is a combination of actual and forecast costs.

Costs relating to the first three years of GD2 (2021-2023 financial years) are actual costs incurred in relation to Kent County Council, Surrey County Council and TFL. The final two years of the claim in relation to these highway authorities, plus West Sussex, are forecast based on the assumption of year 4 Q1 actual data (April 24 – June 24) being consistently observed for the remainder of the price control.

As Oxford County Council and Lambeth Council are not anticipated to implement schemes until the final year of GD2 (2025/2026 financial year), there are no actual costs on which to base our forecast. In relation to these highway authorities, we have forecast year 5 (2025/2026) only as a 10, rather than 12, month period, as we anticipate that this is the most likely period in which GD2 charging will occur, based on our experience of the previous scheme implementation lead times.

To build an accurate prediction, we have used historical workloads to assess the proportion of work which would require lane rental once a scheme comes into force. Using historical workloads ensures that geographic idiosyncrasies are embedded in our forecasting – for example, if a standard job is more or less challenging in Oxford and/or Lambeth, this will have been reflected in our historical completed workloads and, as such, by using this data going forwards we are able to ensure that the operational projection forming the basis of our claim is as accurate as possible.

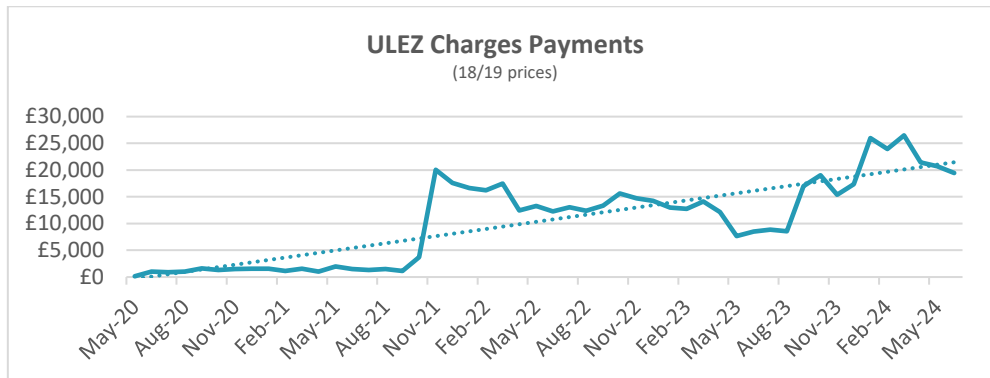
Oxford and Lambeth are yet to publish their anticipated charging rates and, therefore, an estimated rate was calculated using a combination of the observable average rates already charged in Oxford and TFL. A combination of Oxford and TFL was used as a preferred approach over simply replicating TFL’s charging, as it maintains acknowledgement of geographic proximity and therefore urban similarities between the Lambeth and TFL areas while benefitting from the relatively lower level of Oxford charging rates acting as a mitigating factor against TFL charging generally representing one of the higher charge rates.

Using the average rates, the claim value acknowledges that few highway authorities charge the proposed maximum of £2,500 per day and our submission is more likely to reflect reality. This does create a risk that, should Oxford and/or Lambeth charge higher than the average rates used in our calculations, our claim value would be insufficient as the costs would be higher than anticipated. However, it is our view that the evidence of average rates is more compelling than the regulatory possibility that either highway authority may charge the full rate and our claim can be submitted with a high degree of integrity that forecast costs are robustly rooted in observable evidence wherever possible.

Ultra Low Emissions Zones Claim Forecast

As discussed in the Legislative Context section, the number of ULEZ charges incurred since the scheme’s implementation is rising, although tempered by our vehicle optimisation strategy. As would be expected, and as shown in Figure 14 below, the associated charges incurred follow a similar trend, with visible reductions seen in March 2022 to May 2023, and May 2024 to present, but significant increases shown in October 2021 and August 2023 when the scheme was expanded.

Figure 14 – ULEZ Charges



As per the Base Assumptions, we do not anticipate any further extensions to the scheme in the GD2 period. We are planning to replace a further 83 non-compliant vehicles in October 2024, with full fleet replacement by the end of GD2.

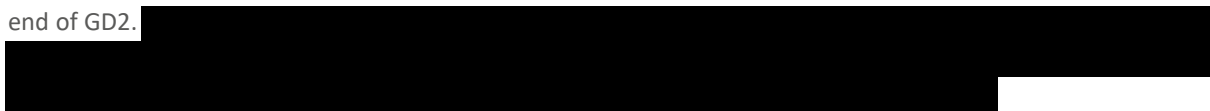
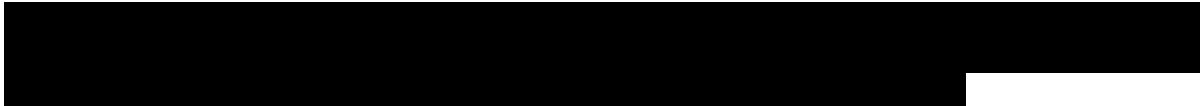


Figure 15 - Total ULEZ Component of Re-Opener Claim Value

18/19 Prices in £m	Ultra Low Emission Zone Charges					GD2 Total
	2021/22	2022/23	2023/24	2024/25	2025/26*	
Total ULEZ Component of Re-Opener Claim Value	0.10	0.16	0.19	0.22	0.22	0.88

*Forecasts are based on 18/19 prices and exclusive of inflation. As such, where workloads and charge rates are anticipated to remain generally consistent (such as in 25/26), this can appear as a slight reduction in costs.

At the point of submitting this re-opener application, the replacement vehicles have not yet been delivered and, as such, SGN is working at risk by submitting a lower claim value on the assumption that they will be delivered.



Manual Operation of Portable Traffic Signals Forecast

As discussed, we have observed a behavioural change in GD2, whereby highway authorities are increasingly requesting manual, rather than automated, traffic signalling, which drives incremental costs into our operations. Observable data supports this trend, with 6.8% of permits requiring manual attendance in 2023/2024, compared to 5.4% in 2022/2023, as seen below in Figure 16.

Figure 16 - Permits requiring Manual Operation of Portable Traffic Signals

	Submission date			
	FY 2022	FY 2023	FY 2024	Total
All Applications	32,359	31,222	31,685	95,266
Applications with NCT08b	1,757	2,091	2,153	6,001
% of Applications with NCT08b	5.4%	6.7%	6.8%	6.3%

Further investigation into the permitting trend by our centralised streetworks team has identified the distribution of the manual requirement across the permit requests.

Figure 17 - Origin of Manual Requirement within Permits

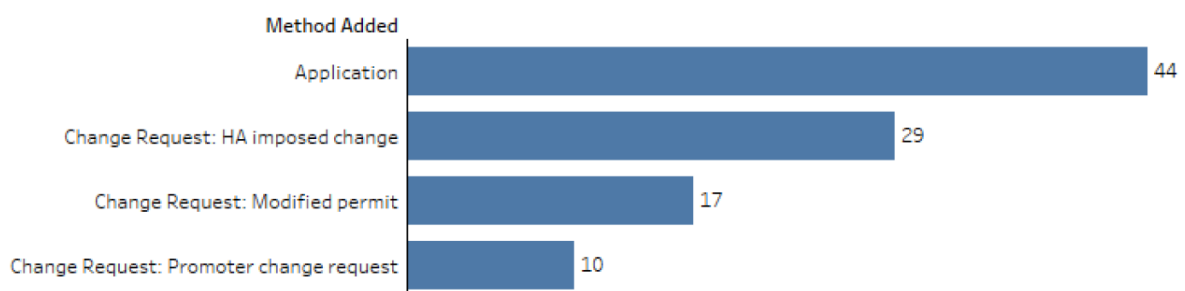


Figure 17 above demonstrates that, in a sample of 100 permits, 73% require manual traffic signals at the request of the highway authority, either at the point of application or as a change raised during the permit’s timespan. This is compared to 27% of permits requiring manual traffic lights at the request of the promoter/operator (in this context, SGN). Figure 17 demonstrates that the requirement is far more likely to be imposed upon our operations by the relevant highway authority than it is for SGN to identify the necessity for manual signalling.

As discussed, the permit requirements result in extended manual presence at the streetworks site beyond the usual start and end of the working day. As such, this incurs a premium due to the extra resourcing required.

Figure 18 - Incremental Cost of Manual Attendance at Traffic Lights

£m	2021/22	2022/23	2023/24	2024/25	2025/26	Total
18/19 prices	0.0	0.0	0.71	1.07	0.87	2.64

While overall there is a demonstrable increase in manual traffic light requirements, as discussed, our Adaptation strategy is beginning to influence this trend, as seen in our East region. We intend to continue this approach for the remainder of the GD2 period.

Using actual costs incurred to date from Aldershot, East and Southern regions to build the forecast, we have reflected our Adaptation strategy in our calculations and have been able to forecast a reduction in the incremental costs across the final three years of the period. This is shown in Figure 18 above, with the reduction in our year 5 costs (25/26) in comparison to year 4 costs (24/25) demonstrating our commitment to driving efficiencies.

7. Conclusion

In the above submission, we consider that we have presented a robust, well-assessed re-opener claim in relation to unexpected Streetworks costs incurred in the GD2 period in our Southern network, in line with Special Condition 3.24 of our Gas Transporter Licence. These costs relate to new or additional requirements under existing streetworks schemes, and additional highway authorities implementing new schemes.

We have discussed the legislative context and demonstrated how this impacts our network; setting out a clear scope and composition of the claim across three cost categories, consistent with our industry contemporaries. We have also demonstrated how the environment in which we operate has unpredictably changed during the price control and the financial impact of this change.

We have been clear to exclude GD2 allowances of £5.8m from our claim.

Figure 19 - Total Re-Opener Claim Value

Description	Actual and Forecast Costs (£m, total, 18/19 prices)
Lane Rental	11.43
Ultra Low Emission Zone	0.88
Manual Traffic Attendance	2.64
Total Re-opener Claim	£14.96

Figure 19 above summarises our total claim value of £14.96m, in 18/19 prices. This value has been built using actual and forecast costs, with the latter based on historic workloads applied according to the methodology and assumptions set out. We are pleased to demonstrate that our claim takes into account the positive impact of our proactive approach to managing and mitigating streetworks costs wherever possible.

We welcome Ofgem's assessment and look forward to continued engagement in relation to this claim.

