

Uncertainty Mechanism Claim for Specified Street Works Costs in RIIO- ED1

May 2019

REDACTED VERSION
Appendices removed for publication

1 Executive Summary

The New Roads and Street Works Act (NRSWA) 1991 and the Traffic Management Act (TMA) 2004 include provisions that require utilities working as Statutory Undertakers to notify Highways Authorities (HAs) of work that will be carried out on public highways. This legislation covers Noticing schemes, Permit schemes and Lane rental schemes. Permit schemes have been progressively replacing Noticing schemes since 2010.

Licence Condition CRC 3F and the RIIO-ED1 Price Control Financial Handbook provide a mechanism for all Electricity Distribution (ED) licensees to propose revisions to the levels of allowed expenditure for Specified Street Works Costs in RIIO-ED1. Such costs include permit fee and lane rental fee costs, one-off set up costs, additional administrative costs and additional costs arising from the application of permit conditions, which were not known at the time of the RIIO-ED1 business plan submissions in June 2013. There is one application window in May 2019.

Permit schemes have been in operation in WPD's Electricity Distribution networks since 2011, but only three had been operating for 12 months at the time of the RIIO-ED1 Business Plan submission in June 2013. Only costs relating to these schemes were included in WPD's opening allowances. As at May 2019 a further 19 HAs have now started to operate schemes and it is expected that all 44 HAs will have full schemes in operation by the end of 2019/20.

WPD has incurred costs associated with the introduction of permit schemes that are unavoidable: the payment of fees for the application of a permit; the additional administrative workload; and the cost of compliance with the many conditions that a permit can specify (permit condition costs). These costs have and will continue to be managed as efficiently as possible.

The Department of Transport (DfT) has now enabled the future roll-out of lane rental schemes throughout England¹. Lane rental schemes will charge a daily fee for access to work in the highway. Although there are none currently in operation in WPD's licence areas, it is anticipated that many will be in operation by the end of the RIIO-ED1 price control period and therefore a forecast for these costs has been included in this re-opener application.

The value of the claim included in this submission is as stated in Table 1-1:

Table 1-1 - WPD RIIO-ED1 Specified Street Works Claim, £m 12/13 prices

Licence Area	Permit Costs	Lane Rental Costs	Total Claim
	£m 12/13 prices		
WMID	£10.0	£14.5	£24.5
EMID	£13.3	£7.5	£20.7
SWALES	-	-	-
SWEST	£5.6	£5.4	£11.0
WPD	£28.9	£27.3	£56.2

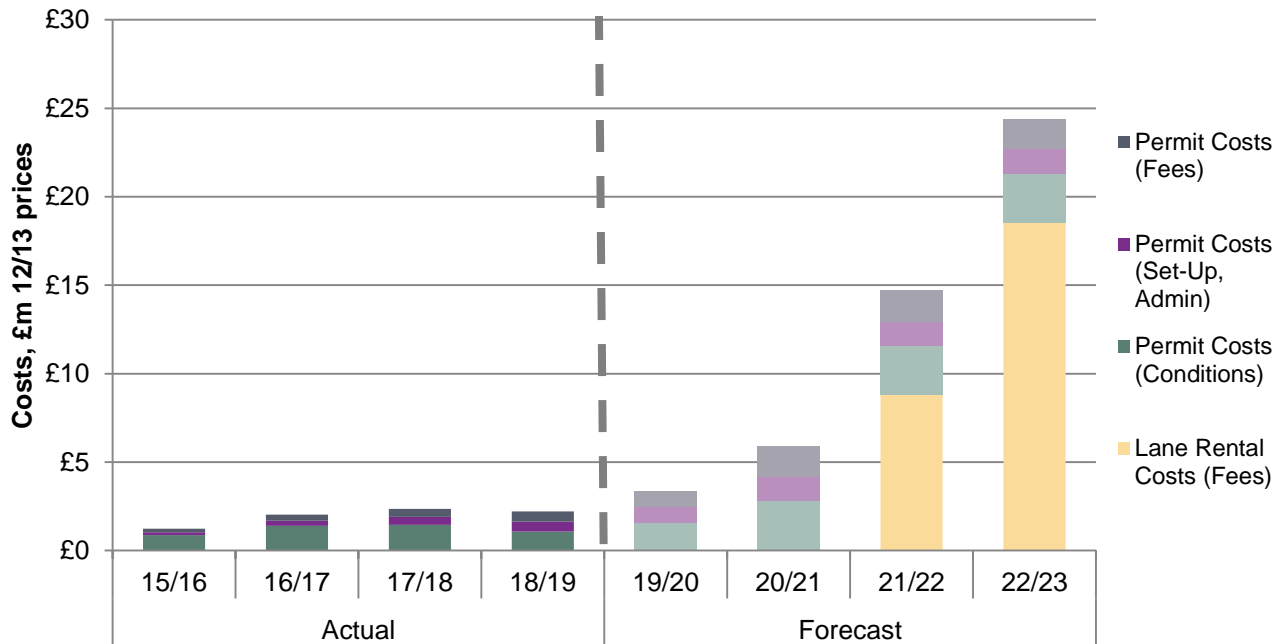
No claim is being made for SWALES. Street works legislation in Wales is a devolved power, which sits with the Welsh Government, and not the DfT. No permit schemes are yet in operation in Wales or known to be

¹ DfT (2018) [Future of Lane Rental Schemes for Roadworks](#)

starting in RIIO-ED1 which means costs are unlikely to exceed the minimum materiality threshold to substantiate a claim in this price control.

Figure 1-1 shows the costs associated with the introduction of permit and lane rental schemes that WPD has incurred in RIIO-ED1 to date and the costs that we expect to incur in the remaining four years of the price control.

Figure 1-1 - Permit and Lane Rental RIIO-ED1 Costs, Actual and Forecast for WMID, EMID and SWEST combined



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All data tables and graphs in this document are supported by Appendix 3, which link through to a series of detailed excel modelling and source files which are included as further appendices.

All costs presented in this submission are in 2012/13 prices (unless otherwise stated).

2 Background to Street Works

This Section describes the Ofgem Licence mechanism, WPD's RIIO-ED1 business plan submission and the Street Works legislation to provide context to the regulatory and legislative environment of Street Works.

2.1 RIIO-ED1 Licence Mechanism

2.1.1 RIIO-ED1 Allowance

In line with the RIIO-ED1 Business Plan Data Tables (BPDTs) Regulatory Instructions and Guidance (RIGs), costs associated with permit schemes yet to be implemented (i.e. those which were not operational by 1 July 2013 or where the scheme had been implemented by this date but where the DNO did not have 12 months' worth of cost data relating to the scheme) were not included in the relevant cost activity tables in WPD's RIIO-ED1 business plan submission and hence are not part of WPD's agreed ED1 totex allowance.

2.1.2 Re-opener Mechanism

Licence Condition CRC 3F and the RIIO-ED1 Price Control Financial Handbook provide a mechanism for all ED licensees to propose revisions to the levels of allowed expenditure for Specified Street Works Costs. Such costs include permit fee and lane rental fee costs, one-off set up costs, additional administrative costs and additional costs arising from the application of permit conditions. There is one application window in May 2019.

Licensees may only submit a claim for adjustment where costs exceed a minimum material threshold, as specified in Licence Condition CRC 3F appendix 3 and as reproduced in in Table 2-1:

Table 2-1 - Street Works Re-opener Materiality Threshold, £m 12/13 prices

Licence Area	Materiality Threshold £m, 12/13 prices
WMID	£5.7
EMID	£5.7
SWALES	£2.9
SWEST	£4.2

2.1.3 Need for the Claim

CRC 3F states that any proposed adjustment should be based on information regarding actual or forecast efficient expenditure levels which was unavailable or did not qualify for inclusion at the time that the licensee's opening base revenue allowance was derived.

Since the time of WPD's business plan submission, 19 additional permit schemes have come into operation and an additional 22 are expected to come into operation by the end of 2019/20. It is also expected that lane rental schemes will be in operation in WPD's licence areas by the end of RIIO-ED1. This is based on further information received from the DfT which was not available at the time of the RIIO-ED1 business plan submission (see Section 3.2).

WPD considers that the proposed adjustment for the costs included in this claim cannot be made under any other provisions of WPD's licence.

2.2 WPD RIIO-ED1 Business Plan and ED1 Reporting

2.2.1 RIIO-ED1 Business Plan

WPD's RIIO-ED1 Business Plan submission clearly laid out that only four Highway Authorities operated permit schemes at the time of the submission in June 2013. A summary of these schemes is presented in Table 2-2. These were all in EMID; no permit schemes were in operation in WMID, SWALES or SWEST at the time of the business plan submission.

Table 2-2 – Highway Authorities operating permit schemes as at June 2013, EMID

Highway Authority	Start Date	Roads
Bedfordshire Borough Council	05/11/2012	All streets
Doncaster Metropolitan Borough Council	12/06/2012	Strategic Streets only
Northamptonshire County Council	10/01/2011	Strategic Streets only
Sheffield City Council	12/06/2012	Strategic Streets only

Of these, Bedfordshire's scheme had not been operational for 12 months by 1st July 2013 and so the costs incurred (actual and forecast) operating under their scheme were not included in the RIIO-ED1 business plan submission. Therefore, any actual and forecast costs associated with Bedfordshire Borough Council form part of this re-opener submission.

Any actual and forecast costs associated with Doncaster, Northamptonshire and Sheffield strategic streets schemes have been excluded from this claim. Note that costs on non-strategic / non-traffic² sensitive schemes have been included in the claim as these were not in existence at June 2013.

No forecast costs were included for lane rental schemes in WPD's RIIO-ED1 business plan submission.

2.2.2 RIIO-ED1 Reporting: Regulatory Reporting Pack (RRP) Submission

Two memo tables are included in the Annex B RIGs which include permit scheme and lane rental reporting:

1. Table M9b Permit & Lane Rentals (ex ante)
2. Table M9c Permit & Lane Rentals (reopener)

Table M9b reports only those permit schemes that were included in WPD's ED1 business plan (Doncaster, Northamptonshire and Sheffield strategic streets). These are not part of this claim.

The purpose of Table M9c was to collect the expenditure associated with this reopener; however the costs included in this claim differ from those previously reported in table M9c, primarily due to this claim excluding costs that are avoidable, or which are recoverable from third parties. Table M9c includes costs relating to permit penalties, which have been excluded from this submission because they are judged to be within management control and hence avoidable. Table M9c also includes costs on connections projects – WPD has excluded these from this claim, as these should be recoverable from the connections customers. Further, in the 2017/18 RRP submission, WPD did not report any costs associated with the application of permit conditions, but stated that these were excluded whilst we reviewed our systems and processes for identifying and reporting these costs. This review is now complete and ongoing improvements will continue to be implemented.

² 'Traffic sensitive' is a designation under Section 64 of NRSWA defined by meeting one of more of the criteria set out in Regulation 16 of "The Street Works (Registers, Notices Directions and Designations)(England) Regulations 2007" – Statutory Instrument No.1951. 'Non-traffic sensitive' is a street that does not meet the criteria of a 'Traffic sensitive' street. 'Strategic streets' covers traffic-sensitive streets and category 0, 1 and 2 streets (regardless of traffic-sensitivity).

The 2018/19 RRP submission for table M9c will be updated to reflect the costs now identified as part of this claim.

Increased costs especially on Closely Associated Indirects (CAI) are clearly evident in WPD's previous RRP submissions for WMID and EMID in all years reported to date; this submission references these increased costs in Section 3.3.

The 2017/18 cost forecast submission (RRP tables M16 and M17) did not include the impact of increased street works costs in future years. Since last year's RRP submission in July 2018, further evidence to support the roll-out of permit schemes and lane rental schemes has been published³.

2.3 Street Works Legislation

2.3.1 Traffic Management Act

The New Roads and Street Works Act (NRSWA) 1991 and the Traffic Management Act (TMA) 2004 include provisions that require utilities working as Statutory Undertakers to notify Highway Authorities (HAs) of work that will be carried out on public highways.

There are three systems in operation: Noticing schemes, Permit schemes and Lane Rental schemes.

Noticing schemes are legislated by NRSWA and provide a notification system where a Statutory Undertaker informs the HA of their intention to carry out works, providing details of the expected works activity, location, dates, duration and traffic management. Since 1993 and prior to RIIO-ED1 this had been the main method for notification in England and Wales and does not require any payment. Unless the HA exercises their powers to direct the timing, location or duration of works, the work can go ahead as notified without any confirmatory communication from the HA.

Permit schemes have been progressively replacing noticing in England since 2010 as HAs adopt them. The significant difference is that the HA will grant or refuse permission based upon an assessment of the submitted permit application. No works can take place without a granted (or deemed) permit and this includes the assessment and granting of any variations. HAs can also insist on permit conditions that must be complied with as part of the approval process. This results in a level of uncertainty around the works taking place as any alterations imposed by the HA will require the permit to be amended, re-submitted, reassessed and then granted or occasionally modified again. The HA has the powers to amend the dates, durations, traffic management and any of the permit conditions either before works start, as part of the permit approval process, or during works if unforeseen circumstances occur elsewhere on the highway network or in response to the activity taking place (e.g. following feedback from the public). The permit holder (i.e. WPD) must ensure that their works on the highway are proceeding as set out in the granted permit; any deviations will result in the requirement to apply for a permit variation or face a penalty charge.

All works taking place in the public highway by either Statutory Undertakers or the HA must be undertaken with a valid permit in place.

The work carried out by a HA to assess permits and manage variations, over and above that carried out under a notice scheme, is subject to a permit fee. The permit fees are only payable by Statutory Undertakers.

Until March 2015 in England, the Secretary of State for Transport was required to approve all permit schemes, with each scheme having a Statutory Instrument to commence. From April 2015, the process was made

³ DfT (2018) [Lane Rental Schemes Guidance for English Local Highway Authorities](#)
See also Appendix 10

easier and a HA can now authorise their own scheme via a Sealed Council Order. This has led to a rapid increase in the number of HAs adopting permit schemes.

In Wales, the approval remains with the relevant Welsh Government Minister.

The Department for Transport (DfT) is actively encouraging HAs in England to implement permit schemes, and wrote to all HAs in July 2018 encouraging them to implement schemes by 31st March 2019 if they had not already done so (see Appendix 10).

Lane Rental schemes (Charges for Occupation of the Highway) are where HAs can levy a daily charge for works in the highway (in England only). As at May 2019, only two authorities are operating lane rental schemes: Transport for London (TfL) and Kent County Council. They were chosen to run pioneer schemes to prove the effectiveness of the power. Following a consultation in September 2017, the DfT opened lane rental schemes to any interested HAs, with the qualifying criteria that they must be running a permit scheme. As with permit schemes prior to April 2015, the Secretary of State for Transport must approve the application for running a lane rental scheme, with a Statutory Instrument needed for each HA Lane Rental scheme.

In order to aid the HAs in preparing their lane rental schemes for approval by the Secretary of State for Transport, the DfT issued updated lane rental scheme bidding guidance in August 2018⁴. This provides a common framework for lane rental schemes, such as maximum daily charges for Statutory Undertakers and HA works, whilst providing flexibility for schemes to be tailored to meet the specific requirements of the bidding HA.

2.3.2 Permit Schemes

2.3.2.1 Scope of Permit Schemes

The legislation allows Highway Authorities to run individually designed schemes within their own network without reference to any similar schemes. This means that each HA is able to design a permit scheme that suits their individual requirements, which leads to different administrative requirements for each authority.

Examples of different scheme requirements are:

- The streets covered by the scheme (all streets, or just selected streets);
- The type of work included (all works, or just certain types of work - Major (by duration), Standard, Minor, Immediate (urgent, emergency));
- The requirements for Immediate works (such as fault works);
- Additional information required (e.g. plans);
- Conditions that must be complied with when undertaking works; and
- Levels of permit fees to be charged (subject to a cap set by the DfT).

2.3.2.2 Permit Scheme Fees and Charging Methodology

The different work types attract different permit fees; the permit fees are also split by the location on the highway to which the permit is to be applied (category 0,1,2 & traffic sensitive streets and category 3 & 4 non-traffic sensitive streets).

Permit fees are payable to cover the additional works carried out by a HA, over and above the works required to fulfil their obligations under a Noticing scheme, to assess and grant or require changes to a permit application by a Statutory Undertaker. The fee is for the service provided, not for access to the highway.

The maximum fee levels in regulation are £240 for a permit application, £105 for a Provisional Advance Authorisation (PAA) and £45 for a variation. The other fees, alongside these maximum levels, are set out in

⁴ DfT (2018) [Lane Rental Schemes Guidance for English Local Highway Authorities](#)

the Statutory Guidance for Highway Authority Permit Schemes issued by the DfT in October 2015⁵ and are detailed in Table 2-3.

Table 2-3 - Maximum permit fees, as set by the DfT

Category of Street Works	Road Category 0, 1 & 2 or Traffic-Sensitive	Road Category 3 & 4 and non-Traffic-Sensitive
Provisional Advance (It is suggested this fee applies only where value has been added in processing the works)	£105	£75
Major works – over 10 days and all major works requiring a traffic regulation order.	£240	£150
Major works – 4 to 10 days	£130	£75
Major works – up to 3 days	£65	£45
Activity Standard	£130	£75
Activity Minor	£65	£45
Immediate Activity	£60	£40
Permit Variation	£45	£35

Major works have a two-step process: a PAA is submitted at least three months ahead of the actual permit application; which is then followed by the separate permit application at least ten working days in advance of the proposed start date. Both stages incur a separate permit fee for the assessment of the application by the HA, with the PAA fee becoming payable on receipt by the HA of the permit application, regardless as to whether or not that permit application is granted.

Permit fees for all categories of works are payable following the granting of the permit application by the HA.

Fees are also payable for permit variations where the proposed works on site have changed or it is anticipated that they will need to change from the granted permit. Whilst WPD is focussed on keeping these costs to a minimum, it is inevitable that some alterations to planned works will be incurred; in the case of Immediate works to restore electricity, variations are often needed to ensure the permit reflects the on-site situation.

As well as having to pay a fee for a permit, any failures to comply with the requirements of the permit scheme can lead to a fixed penalty fine or ultimately prosecution. Any penalty fees incurred by WPD have not been included in this claim.

2.3.2.3 Permit Conditions

When approving a permit, HAs may specify certain conditions. Many conditions are in line with how WPD would expect to undertake works, i.e. safely, promptly, and considering the customer and / or public impact. However there are some permit conditions, such as night-time working, which lead to additional costs for WPD associated with our compliance with the conditions.

In 2015, the existing permit regulations were amended to devolve the power of scheme approval to each HA and to specify that the conditions in each permit scheme must be aligned to a nationally agreed set of conditions. Prior to this, each authority could devise their own conditions, within a set of broadly defined categories. The impact of a set of nationally agreed conditions was to introduce a previously missing level of consistency; however there remains a level of interpretation between HAs and utilities around how and when

⁵ DfT (2015) [Statutory Guidance for Highway Authority Permit Schemes](#), p.29

to use the conditions. WPD has worked locally with HAs and also at a national level to improve the consistency regarding the application of permit conditions by HAs across schemes.

Further detail on the various conditions that HAs are specifying, how they are applied to WPD and the impact on working practices and costs is included in Section 3.3.

2.3.3 Lane Rental Schemes

The DfT issued updated lane rental scheme guidance for English Local Highway Authorities in August 2018⁶. This is guidance only and not legislation, so the DfT are able to exercise discretion for exceptional and justified applications to run lane rental schemes that may differ from these requirements.

To operate a lane rental scheme, HAs must already have in place a permit scheme and will need to provide evidence to demonstrate that the permit scheme has been operating effectively. The first evaluation report covering the first 12 months of the scheme's operation must also have been published.

A lane rental scheme must focus on those critical parts of the highway network where the costs of disruption caused by works are greatest. It is expected that these schemes will cover no more than 5 per cent of the individual HA's network.

Lane rentals should only apply to the most congested roads at the busiest times, so charges would only be applied when works occupy the highway at peak periods, with exemptions from charges at other times, so as to provide a financial incentive to encourage works outside of peak times. The definition of peak periods can differ between road classifications and authorities.

The maximum daily lane rental charge that may be applied is £2,500⁷. This daily rate can apply regardless of the length of occupation during the day. Each HA has the flexibility to set their own scale of charges beneath this maximum charge.

An authority will need to consult locally on proposals for lane rental schemes before finalising its bids and before charges go live; authorities will be expected to trial the schemes.

No lane rental schemes are currently in consultation or in trial in the WPD licence areas as at May 2019, however a number of HAs operating in our area have stated that they are intending to introduce a lane rental scheme, which will come into effect before the end of RIIO-ED1.

2.3.4 Welsh Legislation

Street works legislation in Wales is a devolved power and not governed by the DfT.

In June 2016 the Welsh Government published a National Approach for Road and Street Works in Wales⁸. This document states:

- *"Welsh Government remains neutral on permit schemes and does not specifically promote them in Wales. The Welsh Government will work with any stakeholder wishing to implement a permit scheme to establish whether there is a robust business case for the introduction of permit schemes in Wales following the Welsh Government Transport Appraisal Guidance (WelTAG)"; and*
- *"If a business case establishes that permit schemes are the best approach for improving the planning, co-ordination and implementation of road and street works in Wales, the Welsh Government will develop and publish guidance."*

⁶ DfT (2018) [Lane Rental Schemes Guidance for English Local Highway Authorities](#)

⁷ DfT (2018) [Lane Rental Schemes Guidance for English Local Highway Authorities](#), p.11

⁸ Welsh Government (2016) [National Approach for Road and Street Works in Wales](#), p.6

The primary legislation (Traffic Management Act 2004) to allow permit schemes does exist in Wales, but the approval of individual schemes sits with the Welsh Government and not the DfT.

At the time of writing, there is limited appetite in Wales⁹ for HAs to introduce a permit scheme and no HA has progressed beyond the Welsh Government's WelTAG Process¹⁰.

As the legislation in Wales is at a different stage to the permit regulations in England, this could lead to a scenario similar to the pre-2015 situation in England, with Welsh HAs devising their own permit conditions. In order to pre-empt this, the Welsh Government, through the Welsh Highway Authorities and Utilities Committee (HAUC), set up a Permit Guidance Group for Wales. WPD has played a key part in this group, providing insight into the learning points from our experiences over the past eight years, as well as providing expertise around the legislative framework and the practical application of permits.

At this time, there is insufficient evidence to suggest that additional permit and lane rental costs will be incurred in SWALES by the end of ED1 above the minimum materiality threshold. Therefore WPD is not making any claim for SWALES in this re-opener window.

It should be highlighted that whilst permit schemes are not currently being introduced in Wales, some Welsh HAs are enhancing the application of existing powers under noticing schemes. This includes the use of powers to request works done on Sundays in key city locations, and the challenging of notice types, the duration of works and interpretations from England as to applicability of Section 74 (charges for unreasonably prolonged occupation of the highway). The Code of Practice for Co-ordination of Street Works has not been reviewed in Wales since 2008 and is currently on version 2. The equivalent in England is version 4 and a review is in progress.

A small part of the WMID's licence area covers Welsh authorities. These are also excluded from this claim.

2.4 Wider Regulatory Background

Additional cost pressures following the introduction of permit schemes and lane rental schemes are an issue for all utilities and there is recent regulatory precedent to acknowledge that changes in Street Works policy is having a significant and material cost impact on network utilities, both currently and in the future.

Cadent submitted an application for £21.3m of additional funding under the RIIO-GD1 Specified Street Works Costs reopener in 2018. In September 2018, Ofgem granted £17.3m in additional allowances.¹¹

Ofwat, in fast-tracking the business plan prepared by Severn Trent Water in January 2019, has accepted £16.5m¹² (in 2012/13 prices) in forecast costs that the company expects to incur "*associated with the impact of the introduction of permit schemes made pursuant to the Traffic Management Act*"¹³.

Whilst Ofwat's business plan data tables for the Water sector only sought to capture the specific costs associated with the introduction of permit schemes, Severn Trent Water set out elsewhere in their business plan¹⁴ that they expect to experience additional cost pressures associated with the roll-out of lane rental schemes in their network during the next price control period.

⁹ WPD are informally aware of one or two Highway Authorities

¹⁰ Welsh Government (2017) [WelTAG 2017 Welsh Transport Appraisal Guidance](#)

¹¹ Both these values are quoted in 2009/10 prices

¹² Water companies were required to provide actual costs for the period 17/18 to 19/20 in nominal prices, with forecast costs for the period 20/21 to 24/25 in 17/18 prices. PR19, the next water sector price review, controls prices for the period 20/21 to 24/25 and therefore overlaps with ED1 for the years 20/21 to 22/23. £16.5m is based on Severn Trent Water's forecasts for 20/21 to 24/25 (£18.5m) converted to 12/13 prices for ease of comparison with the price base used in the ED1 regulatory framework.

Severn Trent Water (2019) [PR19 Business Plan Data Tables Submission](#)

¹³ Ofwat (2019) [Final PR19 Business Plan Data Tables Proforma](#), table WS5 and WWS5

¹⁴ Severn Trent Water (2019) [Business Plan Appendix 8 Securing Cost Efficiency](#), p.10

The Department for Digital, Culture, Media and Sports (DCMS) issued a Street Works toolkit for fibre deployment in England & Wales in 2019¹⁵. This highlights the considerable amount of street works required to achieve full fibre deployment, stating that “*80 per cent of the cost of deploying new full fibre networks lies in civils engineering alone*” (i.e. the street works cost).

¹⁵ DCMS and DfT (2019) [Street Works Toolkit, version 2.0](#)

3 Roll-out of Permits and Lane Rental Schemes

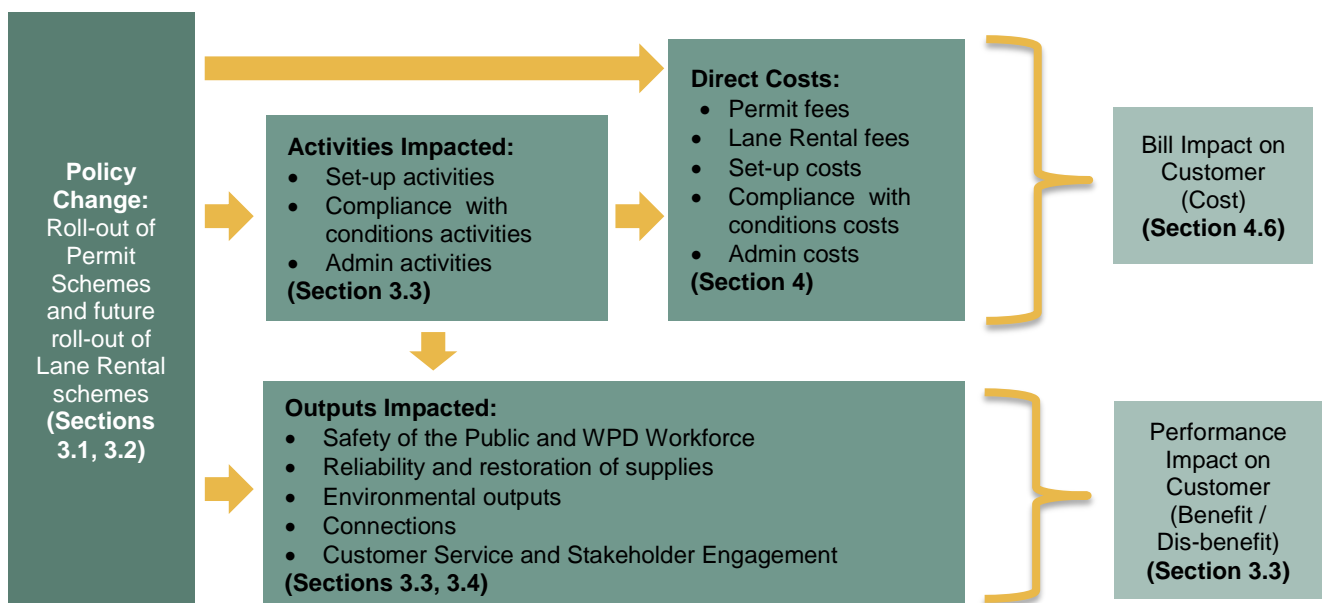
This Section describes:

- The roll-out of permit schemes in WPD's licence areas in ED1 so far;
- The assumptions for the future roll-out of permit schemes and lane rentals in the remaining years of ED1;
- How WPD's working processes have been adapted to deal with the arising challenges; and
- How WPD has worked with industry stakeholders to influence the development and operation of the schemes.

More detailed explanation of the modelling used to calculate actual expenditure and forecast future permit schemes and lane rental costs is included in Section 4 and in the detailed excel model files (Appendices 4-8).

Figure 3-1 considers how the roll-out of permit schemes and future roll-out of lane rental schemes in WPD's area affects our activities, delivery outputs, costs and ultimately our customers. Each impact is considered in turn in the next two Chapters.

Figure 3-1 - Impact of Street Works Policy Change on WPD



3.1 Roll-out of Permit Schemes in RIIO-ED1

3.1.1 Permit Schemes in Operation

At the time of the RIIO-ED1 business plan submission, only four HAs in WPD were operating permit schemes, three of which had been in place long enough to have costs included in the opening allowances.

Many permit schemes have since been introduced across the Midlands licence areas and there are now 25 HAs operating permit schemes across WMID and EMID, with numerous others under development. A summary position by licence area, as at 30th May 2019, is presented in Table 3-1.

Table 3-1 - Highway Authority Positions on implementation of Permit Schemes (at 30th May 2019)¹⁶

Permit Scheme Status	WMID	EMID	SWALES	SWEST	WPD
Permit Schemes in operation	7	18		0	25
Permit Schemes post consultation, not yet implemented	4	0		0	4
Permit Schemes in formal consultation process	2	0		2	4
Permit Schemes being prepared for consultation	0	0		2	2
Permit Schemes to be developed in the future	4	3		6	13
Total	17	21	0	10	48

It is anticipated that all HAs will have permit schemes in place by the end of ED1.

This is because in July 2018, the Secretary of State for Transport, Chris Grayling, wrote to Chief Executives of all English Highway Authorities asking them to introduce permit schemes by 31st March 2019 and reminding them that the Government has powers under Section 3(2) of the 2004 Traffic Management Act (TMA) to direct an authority to introduce such a scheme if they do not do so (see Appendix 10). The letter also referred to specific workshops to be held for South West authorities (none of which currently operate permit schemes). Therefore, whilst a number of HAs are still operating noticing schemes as at 30th May 2019, it is assumed that all HAs will have transitioned to permit schemes in the very near future.

Table 3-1 shows a number of HAs have schemes that are either post consultation, in consultation or are formally pre-consultation. WPD are also aware informally that a number of other HAs are currently preparing schemes for consultation this Summer.

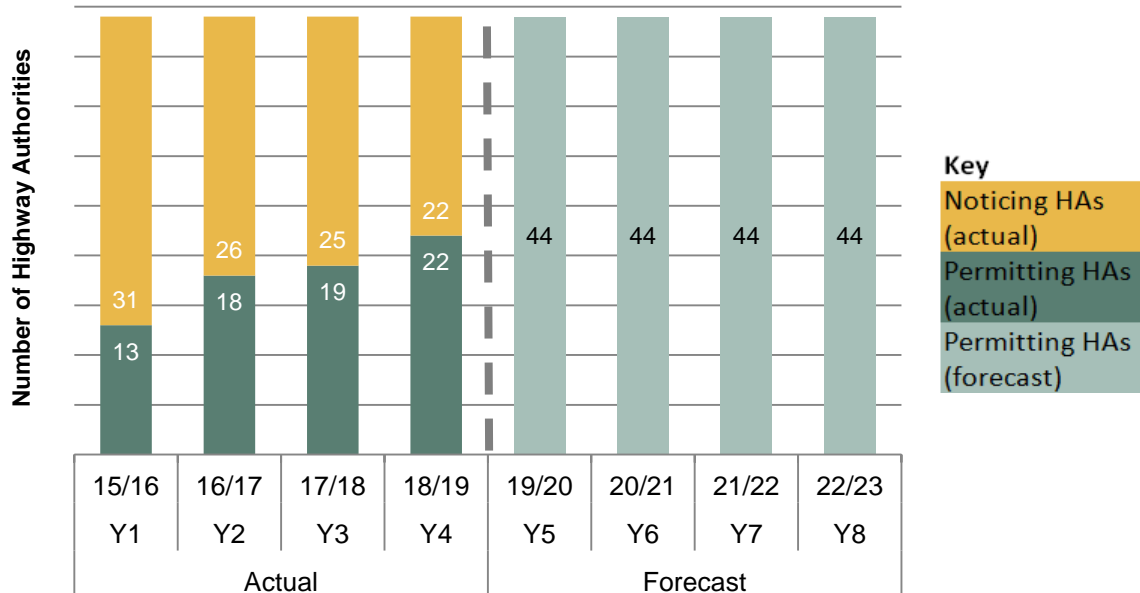
WPD also highlight the potential link between a HA moving to a permit scheme and the implementation of the new DfT driven Street Manager system in April 2020 (see Section 5.1.4) – we believe that HAs will transition to a permitting scheme before April 2020 to avoid a significant upheaval of a new IT system and a new street works scheme on the same date. The DfT has been clear that the design of Street Manager is based around functionality to manage permit schemes (and will also be developed to support lane rental schemes).

WPD's assumption is therefore that all HAs will have transitioned to permit schemes by the last quarter of 2019/20 (unless other information has been provided to the contrary by the HAs themselves). This timescale is feasible, as new permit schemes can be implemented by authorities in a relatively short period: a consultation period can be between 6-12 weeks, followed by a 4 week formal notification period, following the issue of a sealed order from them.

Figure 3-2 shows the actual and forecast number of HAs operating noticing and permitting schemes at the end of each regulatory year.

¹⁶ The road networks of 44 Highway Authority reside fully or in part across WPD's WMID, EMID and SWEST licence areas. Four HA areas cross WPD's licence area boundaries (Solihull Metropolitan Borough Council, Staffordshire County Council and Warwickshire County Council both have roads in WMID and EMID; South Gloucestershire County Council has roads in both WMID and SWEST) and therefore Table 3-1 captures these HAs twice.

Figure 3-2 - Number of Highway Authorities that are operating Permit and Notice schemes, Actual and Forecast in WMID, EMID and SWEST combined



3.1.2 Permit Fees

Permit fees are known for all HAs with permit schemes currently in operation or where draft fees have been proposed as part of a current consultation. Each authority can set their own permit fees, up to a maximum set by the DfT. The maximum chargeable permit fees at the time of writing are presented in Table 2-3. Many authorities already charge the maximum allowable. The maximum fees levels include no allowance for inflation uplifts.

Any changes to the maximum cap would need to go through the correct procedures for consultation, including an impact assessment to justify the change to regulations; however the DfT could amend the scale of charges beneath the maximum cap in regulations without alteration to the permit regulations as these are only set out in Statutory Guidance. WPD has no reason to believe at the time of this submission that the permit fees are due to be altered, but there is no legal assurance that these will not be changed during the remainder of ED1. These fees have been held at the same amount since 2007.

No assumptions have been made in WPD's cost forecast modelling to assume that maximum permit fees will be increased above the current maximum.

For permit schemes not currently in operation or consultation, fees have been forecast at the maximum permit fee level (based upon many HAs already charging at this level).

For HAs currently charging permit fees below the current maximum fee level, it has been assumed that this will uplift to the maximum charge from April 2021 (Y7).

3.1.3 Status and Assumptions by Highway Authority

Using the status and reasoning discussed above, WPD's position on the modelling and forecast assumptions for implementation of permit schemes and the expected fee levels for each of the HAs has been set out in Appendix 1, Table A1-1, Table A1-2 and Table A1-3 for WMID, EMID and SWEST respectively.

3.2 Roll-out of Lane Rental schemes

No HA in WPD's licence areas currently operates a lane rental scheme. At the time of writing, only two lane rental schemes are in operation in England, one operated by Transport for London (TfL) in Central London and the other in Kent. However, the roll-out of lane rental schemes is expected to be a feature of the future organisation and management of Street Works activities across the country within the remaining years of the ED1 price control, and the DfT has issued further guidance on the operation of these schemes, as described in Section 2.3.3.

WPD therefore anticipates that lane rental schemes will be operating within WPD licence areas before the end of ED1.

WPD's modelling adopts a spatial roll-out approach, based on major cities and surrounding HAs moving to lane rental schemes first, for the following reasons:

- This aligns with the development of environmental initiatives such as Clean Air Zones and Low Emission Zones and existing transport policies in major cities, such as the Workplace Parking Levy and development of EV charging facilities. These are all mainly city focussed including major cities in the WPD licence areas;
- This aligns with the impact of HS2 works coming across and into the West Midlands. Lane rental is likely to be used on surrounding road networks to reduce occupancy and disruption. The DfT guidance states that lane rental schemes should *"fully support the delivery of national infrastructure projects like HS2"*¹⁷;
- The Commonwealth Games are scheduled to take place in Birmingham in 2022; lane rental could be used on the surrounding road network to reduce occupancy and disruption leading up to and during the games, and then remain as a scheme in place after this time; and
- Coventry will be the UK City of Culture in 2021, with associated celebratory events taking place across the city throughout the year; the preparatory works in advance will impact on the available road space.

Appendix 2, Table A2-1, Table A2-2 and Table A2-3 sets out these assumptions in full for the WMID, EMID and SWEST respectively.

This approach is considered a prudent one. It allows sufficient time for permit schemes to be set-up in all HAs where they are not already operating and to allow a timescale of 12 months plus to demonstrate that they are running effectively. It is also expected to take approximately 12 months for HAs to develop a lane rental scheme. Therefore the start dates set out in Appendix 2 appear pragmatic.

A faster uptake by a greater number of HAs in WPD's licence areas could mean that WPD incurs significantly higher lane rental costs than have been forecasted in this application.

Every scheme will operate in different ways. However, in the absence of further information at this time, similar assumptions on the operation of the schemes have been applied to all schemes. WPD has assumed that roads classified as Category 1 and Traffic Sensitive best represent up to the 5 per cent of the road network that could be covered under an individual authority's scheme.

WPD's modelling approach has assumed that we incur the lane rental fees levied in full. It is however expected, that once an operational lane rental scheme has had time to embed that utilities can develop ways of working to avoid the charges or cost share¹⁸. Implementing such alternative ways of working may not

¹⁷ DfT (2018) [Lane Rental Schemes Guidance for English Local Highway Authorities](#), p.6

¹⁸ For example through coordinating Street Works with other utilities so only a single lane rental charge is incurred.

however be optimal, resulting in higher operational costs. Given that no schemes are currently in operation in WPD's area and they will still be in their infancy in ED1 if the roll-out timings are as we expect (see above) we have assumed the lane rental charge as a proxy for net costs.

When a lane rental scheme comes into operation, the permit scheme fees payable on those roads will no longer apply. Therefore in our modelling approach, when we forecast the value of lane rental expenditure, we have excluded the permit scheme fee costs that would have been applied on those roads. Permit conditions will remain in place so these costs will remain as part of this claim, as well as all the associated administration costs.

3.3 Impact on Costs, Outputs and Performance

Research carried out by Ecorys¹⁹ has documented that permit schemes have benefits for all road users. Permit schemes can drive down the duration of disturbance to road users, and the Government considers these are the best way of reducing the congestion caused by street and road works. The aim of lane rental schemes is also to further encourage those undertaking works to carry this out in a less disruptive manner. The benefits noted include:

- Reduction in the length of time that sites are unoccupied, hence reducing total works durations;
- Improvement in planning, co-ordination and working methods to maximise efficiency;
- Carrying-out of works outside of peak periods, reopening the highway to traffic at the busiest times and/or making greater use of evening or weekend working where the local environmental impact is acceptable;
- Optimisation of the number of operatives on site to enable works to be completed as quickly as possible;
- Completion of works to the required standard first time, and with permanent reinstatements, reducing the need to return to the site to carry out remedial works; and
- Ensuring that all works on the highway requiring permits, including those undertaken by the HA themselves, are recorded and can be co-ordinated effectively.

WPD recognise the benefits of these schemes and the need for working practices that minimise disruption to road users. However, the constraints applied by HAs lead to higher costs being incurred by WPD and greater impact on customer service and network performance for electricity customers.

WPD is committed to providing an excellent service to its customers and strives to achieve this whilst acknowledging the balance between customers as road users and as electricity distribution users – these are generally, although not always, the same people. For those distribution customers who don't experience network issues, their only contact with WPD is often only via visible street works – we want this to be done in the safest, least disruptive way possible. WPD also requires safe and reliable journeys for their own workforce attending power outages.

¹⁹ Ecorys (2018) [Evaluation of Street Works Permit Schemes](#)

Table 3-2 summarises the impact of the changes in street works policy on WPD's ED1 outputs.

Table 3-2 - Impact of Street Works on WPD's ED1 Outputs

Output Area	Summary
Safety	The safety of the public and the WPD workforce (including our contractors) is paramount in everything we do. The Street Works best practice we follow will help ensure all road users and the workforce can continue to travel and work in a safe way.
Reliability	WPD always strives to ensure customers who have lost supply are restored as quickly as possible. Ensuring permits are raised and dealt with as efficiently as possible means work can be completed as quickly as possible. We also aim to achieve no other Guaranteed Standards of Performance (GSoP) failures. We need to ensure customers are notified of planned interruptions to their electricity supply and so the timing of permits for planned work need to remain aligned with the notifications sent to customers.
Environment	WPD has committed to reducing the amount of waste that is sent to landfill. Ongoing and future innovations in reducing the amount of excavations required will help reduce the amount of spoil sent to landfill. Permit conditions can impact WPD's environmental performance by requiring all spoil is removed from site more frequently to landfill. WPD also consider other environmental impacts, such as disruption and noise pollution that may be caused by out-of-hours working.
Connections	Any issues with raising and agreeing permits with HAs could adversely impact WPD's performance on the connections Time To Connect (TTC) incentive, or will affect the delivery of the work plan and WPD's engagement with major customers as part of Incentive on Connections Engagement (ICE).
Customer Satisfaction	WPD aims to continue to be the top-performing DNO group across all elements of the Broad Measure of Customer Satisfaction (BMCS). Communication with customers is key, especially where works may be impacted due to changes in the permit. Stakeholder engagement is very important to WPD (see Section 3.4).

3.3.1 Impact on Costs

The growth of permit schemes through ED1 has had a clear impact on costs incurred in the business. WPD aims to minimise additional costs as far as possible through effective management control and efficient working practices; however many elements of the costs are beyond what we can effectively control.

The legislation allows HAs to run individually designed schemes within their own network without reference to any similar schemes. This means that different impacts are seen across our licence areas. To help mitigate this, national permit guidance has been written and distributed by the Highway Authorities and Utilities Committee (HAUC) England, of which WPD's Street Works Policy Manager is a key participant. This guidance is supported by the DfT, however it is not mandatory that HAs or utilities follow the guidance contained in its entirety. WPD uses its best endeavours to comply with the guidance as we feel it is the most appropriate way to work; and wherever the opportunity arises, we advocate the use of this guidance to authorities already running permit schemes and those developing them.

Costs are driven by three key factors: the number of street works requiring permits (volumes of permits); fees; and the imposition of conditions. Each are considered in turn in the following Sections.

3.3.1.1 Volumes of Permits

WPD is not able to influence on the volume of permits in its licence areas, other than ensuring work is performed in a single phase of activities (e.g. first time permanent reinstatement). Thereafter, we can aim only to ensure that staff are adequately trained and IT systems are appropriate to deal effectively with the increased administrative impact of raising and processing permits. WPD's IT system development costs have been kept to a minimum by managing these in-house, using existing staff resources and utilising the systems

that staff are familiar with. Training is provided to all key staff working in a HA area when permits are first introduced there. This enables best practice already gained in previous areas to be shared along with the receipt of cost-savings.

However, it should be emphasised that a permit is more administratively complex and time-consuming than a notice to raise, process and manage. The following Sections detail the specific impacts on staff and processes in WPD.

3.3.1.1.1 Technicians

The role of 'Technicians' is key in WPD and there are currently over 700 in employment across WPD. Technicians are both electrical engineers and project managers. They undertake network operations tasks, such as switching; they supervise craft teams; and they are on standby rotas - so are effectively available 24/7 to help keep the lights on. They are responsible for managing projects involving new connections, asset replacement, repair and maintenance and faults. They co-ordinate pre-site and on-site activities, including delivering and managing customer expectations, liaising with contractors, managing contractors on site and ensuring compliance with street works requirements.

Technicians create and manage all permits required on Major, Standard and Minor works and ensure all work undertaken is compliant with the permit (including Immediate permits as well). The work required includes:

- Interacting and communicating with the teams at the HAs;
- Agreeing timings, scope and requirements of works, to ensure all this stays within the terms of the permit – requiring continuous liaison with contractors, customers and the HAs;
- Arranging any planned shutdowns and ensuring the permit works are and stay consistent with this;
- Ensuring the terms of the permit allow WPD to meet its Guaranteed Standards of Performance, including ensuring that the permit is granted in time with sufficient time allowance to respond to any arising engineering difficulties;
- Resolving any comments, questions and challenges that may be raised regarding permit conditions being imposed; and
- Being responsible for traffic management on site.

More detailed information is required by the HA to grant a permit (compared to a notice). An example is on the location information required: the permit requires a polygon showing the spatial occupation of the works as part of the permit application, which must be reflective of the actual occupation area and amended if this changes; notices require a single point only.

The additional cost associated with this additional preparatory work is reflected in the higher costs reported in the Core Closely Associated Indirect (CAI) activity in the submitted RRP's (all years to date) in the WMID and EMID licence areas.

3.3.1.1.2 Team Supports

'Team Supports' play a vital role in supporting field teams in administrative activities across all areas of WPD. Their workload increases in areas where permit schemes are operated by the highway authorities.

Team Supports raise all permits required on Immediate (faults and emergency repair) works. As discussed in Section 3.3.1.1.1, it is more time-consuming to raise a permit than the equivalent notice. All aspects of the permit and any supplementary information such as traffic management details must be provided to the HA as part of the permit application within two working hours of the works commencing on site.

Additional work is also required on processing the monthly invoices payable for permit fees (no fees were previously payable on notices). WPD works with the permitting HAs to ensure as much information is provided on the invoice as possible, but it is still estimated that each monthly invoice takes 30 minutes per month to check based on current permit volumes.

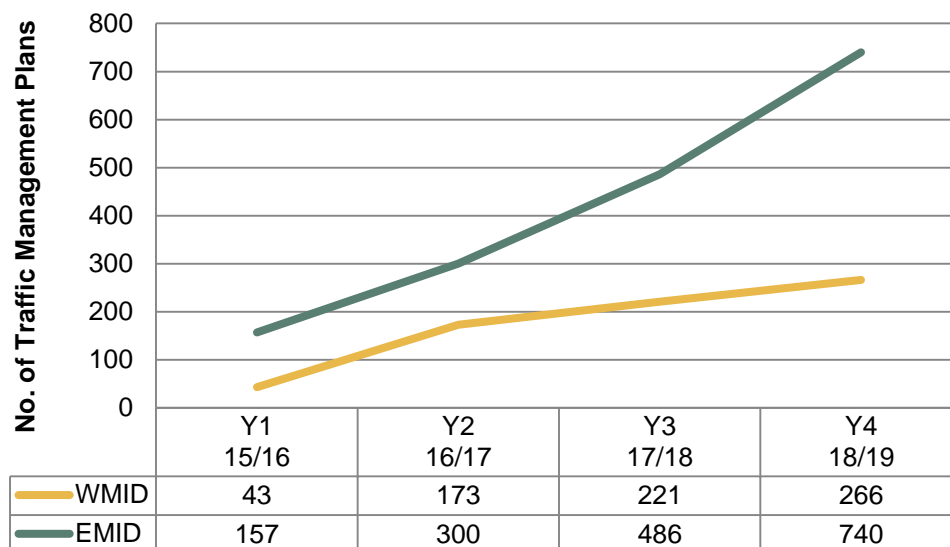
These increased costs are reflected in the higher costs reported in the Core CAI activity in the submitted RRP's (all years to date) in the WMID and EMID licence areas.

3.3.1.1.3 Traffic Management Plans

A traffic management plan is requested by HAs for all works involving carriageway encroachment to detail the lay out, site occupation and details of the traffic management for the site. Included in the preparation costs for these plans is the production of CAD drawings and associated site meetings with permit authority inspectors. Traffic Management Plans are required as part of the application for all permit jobs which have a need for multi-way signals for traffic control.

The number of Traffic Management Plans has significantly increased through the first four years of ED1 as evidenced by Figure 3-3.

Figure 3-3 - Number of Traffic Management Plans, RIIO-ED1 to date, WMID and EMID



Over 1,000 plans were produced in 2018/19; this number is forecast to rise to over 2,350 in the last year of ED1 due to the increase in HAs operating permit schemes. [REDACTED]

These increased costs are reflected in the higher costs reported in the Core CAI activity in the submitted RRP's (all years to date) in the WMID and EMID licence areas.

3.3.1.1.4 WPD Records Team

The WPD Records team provide clerical support on the processing and management of permits. They manage all notifications received and sent through WPD's Street Works Electronic Transfer of Notifications' (EToN) system (known as Bentley) and then will interface with both the WPD operational teams and the HAs.

It has been calculated that the average number of transactions for a notice within the EToN system is 5.1; the average number of transactions for a permit is 8.8. As the number of permit schemes grows, this leads to increased staffing requirements in this team.

The team operates as a centralised function under one manager for the whole of WPD. They can therefore share best practice and will be able to effectively deal with the new permit schemes in SWEST when these start operating.

These increased costs are reflected in the higher costs reported in the Core CAI activity in the submitted RRP's (all years to date) in the WMID and EMID licence areas.

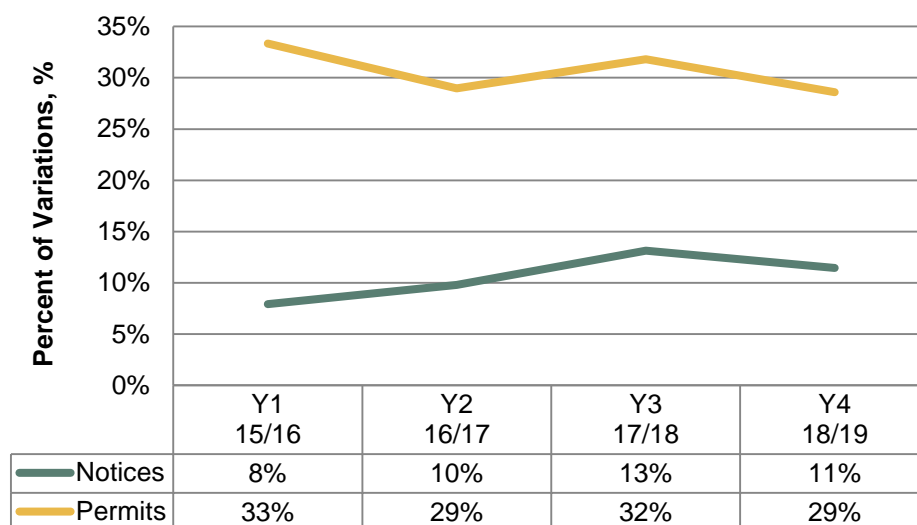
3.3.1.1.5 Variations

Variations are required to alter the terms of the permits. These cost up to £45 per permit, as shown in Table 2-3. Variations are chargeable once the permit has been granted by the HA and could occur before works have started on-site or whilst they are in progress. Reasons include changes to dates of works, changes to the traffic management, changes to agreed conditions or changes in exact location from the original permit raised.

WPD will always try to avoid the need for a variation. However, if they become unavoidable the alternatives are: Fixed Penalty Notices (FPNs) for non-compliance; the cancellation and raising of new permits (which would incur a larger fee than the variation fee); or the revocation of the permit by the HA which means WPD must leave the site as directed without completing the work, which is to the detriment of our electricity distribution customers.

WPD has seen a higher volume of variations on permit schemes than on noticing schemes, because the scope of permits is much broader than notices, particularly because conditions do not exist on notices. Figure 3-4 evidences this observation in the WMID and EMID licence areas in RIIO-ED1 to date (there are no permits in the SWEST to date) compared to the level of variations raised on noticing schemes across WMID, EMID and SWEST in the same period.

Figure 3-4 - Proportion of Street Works that have Variations, RIIO-ED1 to date



3.3.1.2 Permit Scheme Fees

WPD has limited ability or opportunity to influence permit scheme fees. When consulting on fee levels in a scheme consultation, a HA should produce a cost benefit analysis that demonstrates the validity of the level of

permit fee they have chosen, subject to the cap of maximum fee levels. WPD will normally respond to each HA's consultation and challenge as appropriate. However ultimately it is the HA's decision whether they implement their consulted fees or not.

3.3.1.3 Imposition of Conditions

The introduction of permit schemes creates the imposition of permit conditions, which are restrictive conditions applied on a permit by the HA to aid the traffic management on the road network. Although there may be a positive impact on traffic and disruption, the conditions impact the cost of the work undertaken by WPD and can reduce productivity.

Table 3-3 sets out the conditions that can be imposed by a permit and the nature of the additional costs that can be incurred by WPD in complying with these conditions.

Table 3-3 - Permit Conditions and Cost Impact associated with our compliance

Permit Condition	Description of Condition	Cost Impact on WPD
Consultation and Publicity	NCT11A*-Display of permit number on site (HA). NCT11B-Publicity for proposed works such as letter drops, signs etc (HA).	<ul style="list-style-type: none"> Cost of sending staff/contractor to site to write permit number on board Cost of additional publicity (e.g. letter drops and advance signs)
Date Constraints	NCT01A* & NCT01B*-Confirms the start and end date and duration will be as per the permit application (WPD).	<ul style="list-style-type: none"> On NCT01A works MUST start on day one - resource issues.
Environmental	NCT12A-Limit timing of certain activities (e.g. no digging after 9pm) (HA).	<ul style="list-style-type: none"> Cost of reduced working hours - leading to longer overall durations.
Light Signals and Shuttle Working	NCT08A-Request to amend traffic management (HA). NCT08B-Manual Control of traffic management (HA).	<ul style="list-style-type: none"> Changes to traffic management not planned for but imposed by the HA, e.g. cost of road closure Cost of additional staff to manually control lights and similar additional activities
Local	Exceptional circumstances - must be mutually agreed (WPD/HA).	<ul style="list-style-type: none"> Not often used by WPD
Material and Plant Storage	NCT04A-Removal of surplus materials, plant or spoil (HA). NCT04B-Storage of surplus materials or plant (HA).	<ul style="list-style-type: none"> Cost of physical removal of items from site Cost of delivering items to site at point of use; cost of delays to productivity.
Out of Hours Work	NOT USED - See NCT02B.	<ul style="list-style-type: none"> Condition not used
Road Closure	NCT07A-Road closed to traffic- used to provide specifics (WPD/HA).	<ul style="list-style-type: none"> Cost of phasing of works (i.e. smaller sections closed) delaying productivity.
Road Occupation Dimensions	NCT05A-Confirms the area of highway to be occupied in the works (WPD/HA).	<ul style="list-style-type: none"> Works can only take place within the footprint specified at time of application, unless a variation is applied for. Cost of delayed productivity.
Time Constraints	NCT02A- Limits the days and times of day works can take place (HA). NCT02B-Indicates WPD plan to work outside normal hours (WPD).	<ul style="list-style-type: none"> Cost of reduced working hours - leading to longer overall durations and cost of delayed productivity. Cost of out-of-hours and sleeping-in payments
Traffic Management Changes	NCT09A- To enable a change to the original traffic management on the granted permit (WPD). NCT09B- To provide specifics around a phased or complex works (WPD/HA). NCT09C-Signal removal within four hours when no longer required (HA).	<ul style="list-style-type: none"> Cost of phased approach to traffic management, and delayed productivity costs. Cost of signal removal within a four hour service level agreement, if not planned for.
Traffic Space Dimensions	NCT06A-Space to be available to traffic or pedestrians at certain times of the day (WPD/HA).	<ul style="list-style-type: none"> Cost of providing provisions for traffic and/or pedestrians that is over and above the requirements of the Safety Code; including traffic management equipment, resources (may need banksman) and delayed productivity.
Work Methodology	NCT10A-to confirm methodology that has been agreed in advance (e.g. trenchless) (WPD/HA).	<ul style="list-style-type: none"> Cost of alternative excavation, reinstatement, traffic management techniques. May include additional reinstatement.

*NCT01A automatically applies to all permits on 0,1,2 & traffic sensitive streets

*NCT01B automatically applies to all permits on non-traffic sensitive 3 & 4 streets

*NCT11A applies to all permits

WPD has worked locally with HAs and also at a national level to improve the consistency of application of conditions in permit schemes. This work, detailed in Section 3.4, includes: developing National Permit Guidance (as HAUC England); representing the Electricity Sector at the National Permit Forum; setting up an

East Midlands Permit Forum; and sharing good practice and learning from other permit schemes to HAs developing and implementing schemes. Through the National Permit Forum, where permit conditions are used inconsistently or excessively, these issues are raised and discussed by the committee with a request to the DfT to provide guidance. Examples of where this has happened for specific conditions include use of the condition for Manual Control of Portable Traffic Signals and clarity on the permit reference number that needs to be displayed under the Consultation and Publicity condition (both described below). The DfT have also been helpful in clarifying the legislative framework around permit schemes and the hierarchy of documentation issued by HAs that were being used to measure compliance.

The following Sections provide examples of the types of additional costs WPD is incurring. The specific cost reporting and modelling for the purposes of this claim is included in Section 4.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

3.3.1.3.2 Additional Staffing Requirements

Complying with permit conditions often means that WPD require additional workforce on site who would not have been required under the previous noticing schemes, for example, to manually control temporary traffic lights (even if these are automatic signals or on quiet country roads), or to provide an ambassador on site all day when closing the road to help manage traffic even though a signed diversion route is in place. Complying with the terms of permit conditions has led to WPD incurring unavoidable costs as the example below demonstrates.

11kv fault repair project, no. 437026, in a WMID HA

Permit condition stipulated three-way traffic lights with manual control being imposed from 7am to 7pm each day (longer than a standard working day). Temporary traffic lights use the same technology as normal street lights to detect traffic flow, but manual control has been requested by the HA. On this job, the extra cost to WPD was [REDACTED] (total cost of project was [REDACTED]).

Guidance was issued by the DfT and HAUC UK in August 2018 to clarify whether there was a requirement for manual control of traffic lights instead of automatic control. It was confirmed that it is not appropriate for a HA to have a blanket requirement that portable traffic signals are manually operated and that this conflicts with the safety code and statutory guidance on permit schemes. Where a HA insists on portable traffic signals

being manually controlled, it should do so on a case by case basis and the reasons for requiring it at a particular site should be made clear to the utility. WPD's modelling of these costs (Section 4.3.4) for the forecast years is based on a review of costs post August 2018.

Additional man hours have also been incurred due to the requirement to display the permit reference number on site at all times for the duration of the works. This condition can cause additional visits to site to write a permit number on a board, particularly on Immediate works which may be out-of-hours fault repairs: permits are raised in standard working hours and so often the permit number is not available whilst the Dig team are on site; another visit has to be incurred to write the number up.

Permit boards display the name and logo of Western Power Distribution, the relevant contractor's name and logo, and a 24 hour contact telephone number, as well as a courtesy message for the public. Additionally the permit reference number needs to be displayed clearly:

- *Example of full permit number – 7011/DY611M61112345678*
- *Example of full permit number with suffix – 7011/DY611M61112345678.1.2*
- *Example of reduced permit number – 2345678*

Failure to display the correct number, as required by a HA, is a breach of the permit condition and subject to a fixed penalty notice, or ultimately prosecution.

Requirements have been historically for the above full permit reference number (given when the works are approved) to be displayed. This can be up to 19 digits long plus punctuation. Every time a permit is amended in any way, the suffix changes, and so another visit to site is incurred to update the displayed reference. Penalties are incurred if the reference number is not displayed or written correctly. EMID HAs in many cases required the full reference including the suffix (WMID HAs normally didn't require this), so WPD has worked with East Midlands HAs through the East Midlands HAUC Permit forum (see Section 3.4) to reduce the need for the full 19 digit number; it was agreed in 2017 that a 7 digit version would be sufficient, which does not include suffixes. This reduced these costs after this date as less visits to update the permit reference number are now required.

3.3.1.3.3 Working Hours and Out-of-Hours Payments

Permit conditions often mean that work needs to be completed either (1) outside peak hours, so staff have to work through the night at higher pay rates and WPD then incur 'sleeping in' payments for staff the next day; or (2) working hours are restricted to specific times only (such as between 0900-1500 only), which means work takes longer to complete. The below projects exemplify such operational and cost impacts.

Transformer & LV pillar change project, no. 388319, in an EMID permitting authority

The conditions stipulated that all work had to take place out of standard working hours. The out-of-hours payments to staff on this job totalled [REDACTED] (total cost on project was [REDACTED]).

HV Reinforcement project, no. 388890, in an EMID permitting authority

Working hours were constrained to between the hours of 9am to 3pm. It takes approximately 30 minutes to put up and 30 minutes to take down the traffic management controls, so as a result of this condition WPD effectively lost 3 standard working hours per day (including the reduction in time on a normal standard working day (normally (8am to 4pm))). In this example, the duration of the project was extended by approximately 20-30 per cent, because the job took around 8 weeks which could have been reduced to 6 weeks with unrestricted working.

3.3.1.3.4 Material and Plant Storage

Many permit conditions specify the removal of spoil from site daily, which adds additional cost for the cost of two operatives and a 'grab wagon' to carry out this task.

HAs will impose this condition where it is thought that materials on site will impede traffic (both pedestrians and vehicles) and so the use of this condition was intended to assist in keeping the carriageway or footway clear, especially near public buildings like schools or on bus routes. In the absence of this condition, WPD would normally put our spoil beside the hole (usually on the carriageway), to ensure safe access for our workforce in and out of the joint hole and to make it easy for the contractor grab wagon to come and collect it.

WMID has seen more use of this condition than EMID and in circumstances where it wouldn't normally be expected to be imposed (this has been reflected in the costing of the claim in Section 4.4.3). WPD has been working with the permitting authorities in WMID to encourage more use of the national permit guidance and reduce the use of this condition. Through this work, fewer daily spoil collections have been applied in conditions in 2018/19.

Another permit condition which has been applied on a project has stated no large vehicle collections between 0700hrs-1800hrs. This is also another example of how WPD then incurs another out of hours fee; this time for the use of the vehicle and the staff to operate it.

3.3.1.3.5 Work Methodologies

Some permit conditions stipulate that WPD must follow specific excavation and reinstatement techniques that result in additional costs.

An example is where HAs stipulate the amount of ground WPD can have open at any one time. WPD's standard technique is the direct laying of cable into the ground, however permit conditions can enforce that, for example, only up to 40m is excavated at any one time. The benefit to road users is that fewer open street works are in place at any one time. However this is at an increased cost for WPD: the cost of the duct that is then required; the need for more joints; and the increased duration of the job. The use of ducts also permanently de-rates the current carrying capacity of the cable. This condition impacts WPD more than other utilities such as gas and water; their standard practice would be to lay a shorter length of pipe and therefore excavate less road at a time.

As more HAs start to implement permit schemes and hence impose permit conditions, WPD will continue to engage with them to influence future development and also continually review our systems and processes to better capture these costs.

3.4 Stakeholder Engagement

WPD makes every effort to develop and maintain good working relationships with all of our key stakeholders. Given the level of uncertainty in the implementation of changes in street works at a national, regional and local level it is essential that we have positive and productive relationships with government and HA colleagues across these areas. WPD invests in these relationships as they are fundamental to our success: our network

is contained within their areas and we understand the competing priorities involved in disrupting the highway network.

One of the benefits of our good relationships with our street works stakeholders is the ability to have open discussions around their (and our) future plans and to enable WPD to use these communications with them to build intelligence around our forward business planning.

WPD engages with HAs, other utilities and government representatives through a range of formal and informal interactions, and works to support and promote the wider Street Works community. There are a range of meetings named as 'HAUC' (Highway Authorities and Utilities Committee) meetings, which are the principal formal policy meetings between those parties at a regional level, and with Government representatives at a national level. WPD is unique in the Electricity sector in having a place at all levels from local HAUC through to HAUC UK.

A summary of the meetings held are as follows:

Local Meetings

- WPD Technicians meet with HA representatives on an ad-hoc basis to discuss the best way to carry out street works on individual works;
- WPD 11kv Planners and/or operational Team Managers attend quarterly co-ordination meetings with each HA;
- WPD 11kv Planners and/or operational Team Managers attend individual HA HAUC meetings, where these are held; and
- WPD's Street Works Policy Manager and Team Managers attend permit consultation and stakeholder events with HAs when transitioning to permit schemes.

Regional Meetings

- In England, WPD's licence areas cover a number of HAUC areas. We actively participate in Anglian, East Midlands, South West and West Midlands. We have a very small part of North West (Cheshire East), South East (Oxfordshire) and Yorkshire (Doncaster & Sheffield) so these HAs are managed by our local meetings relationships or, by exception, the WPD Street Works Policy Manager if needed;
- WPD Street Works Policy Manager is the current Utility Chair of East Midlands HAUC and East Midlands Permit Forum and East Midlands Joint Utilities Group;
- WPD Street Works Policy Manager and the Distribution Manager responsible for the 'Dig & Lay' contractors attend Anglian, East Midlands, South West and West Midlands HAUC, and East Midlands Permit Forum and Anglian, East Midlands, South West and West Midlands Joint Utilities Group. These are held quarterly or three times a year;
- WPD Street Works Policy Manager attends the West & Shires Permit Forum (West Midlands HAUC Authorities & Cheshire East); and
- WPD 11kv Planners and/or operational Team Managers attend regional HAUC meetings in Wales.

National Meetings

The WPD Street Works Policy Manager is the representative for the following meetings and forums:

- England - HAUC England, representing East Midlands;
- England - National Permit Forum, representing Electricity sector;
- England – Street Manager Steering Group, representing Street Works UK;
- Wales – Welsh HAUC, representing WPD (also attended by WPD Distribution Manager);
- Wales – Welsh Joint Utilities Group, representing WPD (also attended by WPD Distribution Manager);

- UK – HAUC UK, representing Street Works UK;
- UK – ENA Street Works Forum, representing WPD;
- UK – All Regions JUG, representing East Midlands Utilities;
- UK – Street Works UK Board, representing Electricity Network Association (ENA) members; and
- UK – Street Works UK Management Team Chair, representing ENA members.

Street Works UK, formerly known as National Joint Utilities Group (NJUG), is the UK's only cross-sector trade association representing electricity, gas, water, sewage and telecommunications utility companies, their contractors and supply chain partners. Street Works UK also provides the utility side representation at HAUC UK.

The WPD Street Works Policy Manager, [REDACTED], was elected to the then NJUG Board by the members of the ENA Street Works Forum in 2012 whilst Chair of that group, as their representative on national street works matters. Since then she has worked with the Street Works UK CEO and other Board members to restructure the organisation including introducing a Management Team layer and a secondary layer of Expert Practitioner Groups, and rename the organisation to Street Works UK. [REDACTED] chairs the Management Team and brings together key utility and contractor street works managers from a range of organisations to ensure that all members have an understanding of the risks and opportunities around street works. The group is further supported by the Street Works UK Operations Group, and the subject related Expert Practitioners Groups. Members of Street Works UK share good practice and solutions to challenges and work collaboratively to improve the experience of street works for the public.

As part of her role representing WPD and Street Works UK members, the WPD Street Works Manager is often asked to contribute to a diverse range of ad-hoc meetings and projects to provide a knowledgeable and balanced view of the requirements of the legislation and practical guidance on the best way to ensure understanding and compliance.

WPD is proud to play such a key role in the street works community and always endeavours to ensure information is shared across our business and into all of our stakeholder groups. Evidence of this impact can be seen by the awards presented to [REDACTED] by both the Joint Authorities Group (representing all HAs) for 'Outstanding Contribution' for the work on the National Permit Guidance, and by Street Works UK (representing utilities and contractors) for 'Exceptional Contribution' (see Appendix 12). Another example of where WPD has been nominated for an award by Leicester City Council is included in Appendix 13 – this recognises WPD's successful working relationships with the HA and other utilities.

The WPD Street Works Policy Manager is also a leading member of the following national working groups;

- England – Permit Guidance Group, this group produced the HAUC England National Operational Guidance for Permit Schemes²⁰. This group involved three utilities, three HAs and the DfT.
- England – Code of Practice for the Co-ordination of Street Works and Works for Road Purposes review group, WPD is the Utility chair for this group currently reviewing the Code in its entirety. This group comprises of four utilities, four HAs, Network Rail and the DfT.
- England – Street Manager virtual group, with a WPD Street Works Co-ordinator, both supporting the project by user testing.
- Wales – Permit Guidance Group, working to produce a template permit scheme and operational guidance for Wales.

Other relevant guidance documents produced with significant input from WPD are:

- DfT Advice for adoption of streets (not yet published);

²⁰ HAUC UK (2017) [Guidance: Operation of Permit Schemes \(inc. Permit Condition Text\)](#)

- UK – Co-Author with Highways Chair of HAUC UK of the Broadband guidance²¹; and
- Bristol – Bristol Code of Conduct for Street Works²².

In addition to purely street works focussed interactions, WPD have also engaged with HAs around EV charging to open dialogue around solutions to the impact this work will cause by:

- WPD hosting an information event, with invitations to HAs;
- WPD meeting with individual HAs to discuss requirements; and
- WPD DSO Development Manager presenting at the HAUC UK Convention in May 2019 to HAs and utilities from across the UK.

²¹ HUAC UK (2017) <http://hauc-uk.org.uk/publication/58/>

²² Bristol City Council, Bristol Water, Wales and West Utilities Ltd., Wessex Water Services Ltd., Western Power Distribution, Virgin Median, Street Works UK (2018) [The Bristol Code of Conduct for Street works and Road works](#)

4 Uncertainty Mechanism Claim

4.1 Claim Valuation

WPD is submitting a claim for an additional allowance of £56.2m (2012/13 prices) for Specified Street Work costs in the EMID, WMID and SWEEST licence areas, which were not included in WPD's ED1 business plan.

The claim is made up of £28.9m in permit costs (fees, admin and set-up costs, and condition costs) and £27.3m in lane rental costs (fees only). The lane rental costs submitted in this claim are presented as net costs; that is they include an embedded deduction for permit fee costs that would not be incurred when lane rental schemes are introduced. This is because it is understood that where a lane rental scheme is introduced it will supercede the permit fee in place on any given road. As it is expected that lane rental schemes will apply to less than five per cent of roads and for the last two years of RIIO-ED1 only, this embedded deduction is comparatively small²³. Permit conditions will remain in place so these costs will continue to be incurred whether or not a lane rental scheme is adopted, as well as all the associated administration costs.

Table 4-1 sets out the impact on costs in £m, 2012/13 prices, actual and forecast by each of the separate components of this claim.

Section 4.2 summarises the method of calculation and costs of the permit fee component of the claim, Section 4.3 for the permit set-up and additional admin costs, Section 4.4 for the permit condition costs and Section 4.5 for the lane rental fee costs. No costs have been included to represent additional set-up, administration or productivity costs associated with the roll-out of lane rental schemes due to the infancy of their design. WPD do however expect these costs to go above and beyond those incurred with the roll-out of permit schemes; therefore it is likely that the set-up and admin and condition components of this claim are an underestimate of future costs.

Section 4.6 sets out the bill impact as a result of these additional costs.

²³ Section 4.5 and Table 4-5 present the magnitude of the embedded cost deduction for permit fees to the lane rental component of the claim, when lane rental schemes are rolled-out.

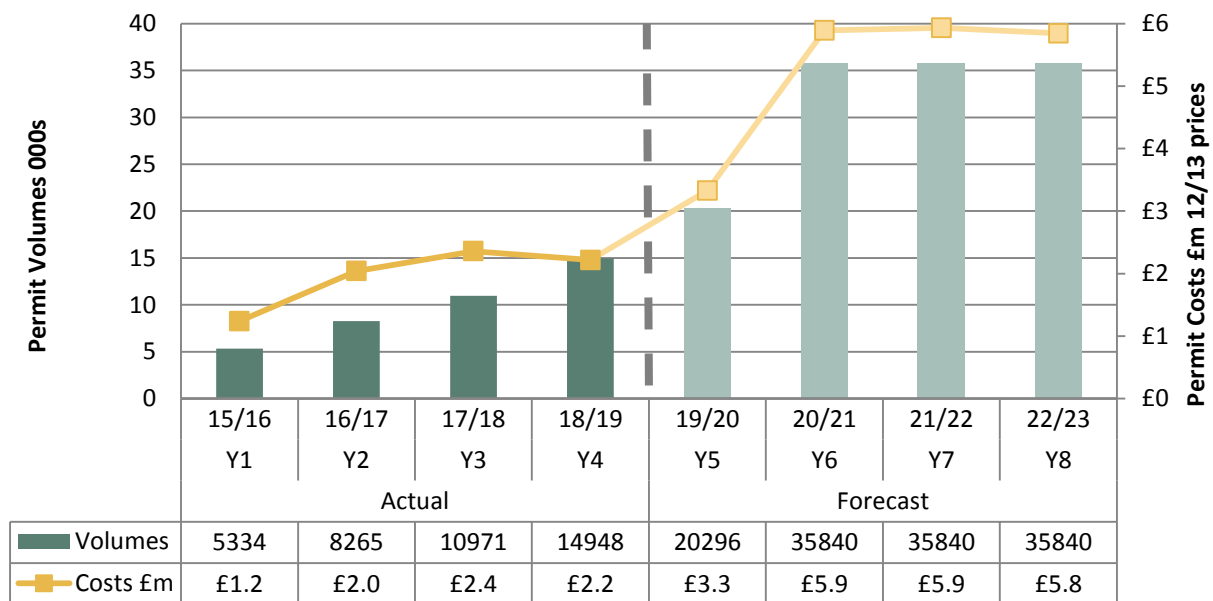
Table 4-1 - RIIO-ED1 Street Works Cost Summary, by licence area, £m 12/13 prices

Street Works Cost Summary £m, 12/13 prices		Actual				Forecast				Total by component	ED1 Street Works Total	Materiality Threshold
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8			
		15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23			
WMID	Permit Fees	£0.1	£0.1	£0.1	£0.1	£0.3	£0.6	£0.6	£0.6	£2.6	£24.5	£5.7
	Set-up costs and additional admin costs	£0.0	£0.1	£0.1	£0.1	£0.3	£0.5	£0.5	£0.5	£2.1		
	Permit condition costs	£0.3	£0.6	£0.6	£0.5	£0.5	£0.9	£0.9	£0.9	£5.3		
	Lane Rental Fee Costs	-	-	-	-	-	-	£5.0	£9.5	£14.5		
EMID	Permit Fees	£0.2	£0.2	£0.3	£0.4	£0.4	£0.6	£0.6	£0.6	£3.4	£20.7	£5.7
	Set-up costs and additional admin costs	£0.1	£0.2	£0.3	£0.4	£0.4	£0.5	£0.5	£0.5	£3.1		
	Permit condition costs	£0.6	£0.8	£0.8	£0.6	£0.9	£1.0	£1.0	£1.0	£6.7		
	Lane Rental Fee Costs	-	-	-	-	-	-	£2.0	£5.5	£7.5		
SWEST	Permit Fees	-	-	-	-	£0.1	£0.5	£0.5	£0.5	£1.6	£11.0	£4.2
	Set-up costs and additional admin costs	-	-	-	-	£0.1	£0.4	£0.4	£0.4	£1.2		
	Permit condition costs	-	-	-	-	£0.2	£0.9	£0.9	£0.9	£2.7		
	Lane Rental Fee Costs	-	-	-	-	-	-	£1.8	£3.6	£5.4		
Total (WMID, EMID and SWEST combined)		£1.2	£2.0	£2.4	£2.2	£3.3	£5.9	£14.7	£24.4	£56.2		

The insights set out in Section 3.1 and Appendix 1 have informed when WPD expects HAS not currently operating a permit scheme as at 30th May 2019 to begin to do so.

Figure 3-2 presents our expectations on the roll-out of permit schemes by HAS in WPD's area and Figure 4-1 (below) sets out the subsequent impact on costs incurred, both actual and expected. Figure 4-1 presents all costs associated with the introduction of permit schemes (i.e. the direct fees levied, plus set-up and additional administration costs, and permit condition costs) incurred by WPD in the WMID, EMID and SWEST licence areas combined.

Figure 4-1 - RIIO-ED1 Permit Volumes and Costs, Actual and Forecast, WMID, EMID and SWEST combined

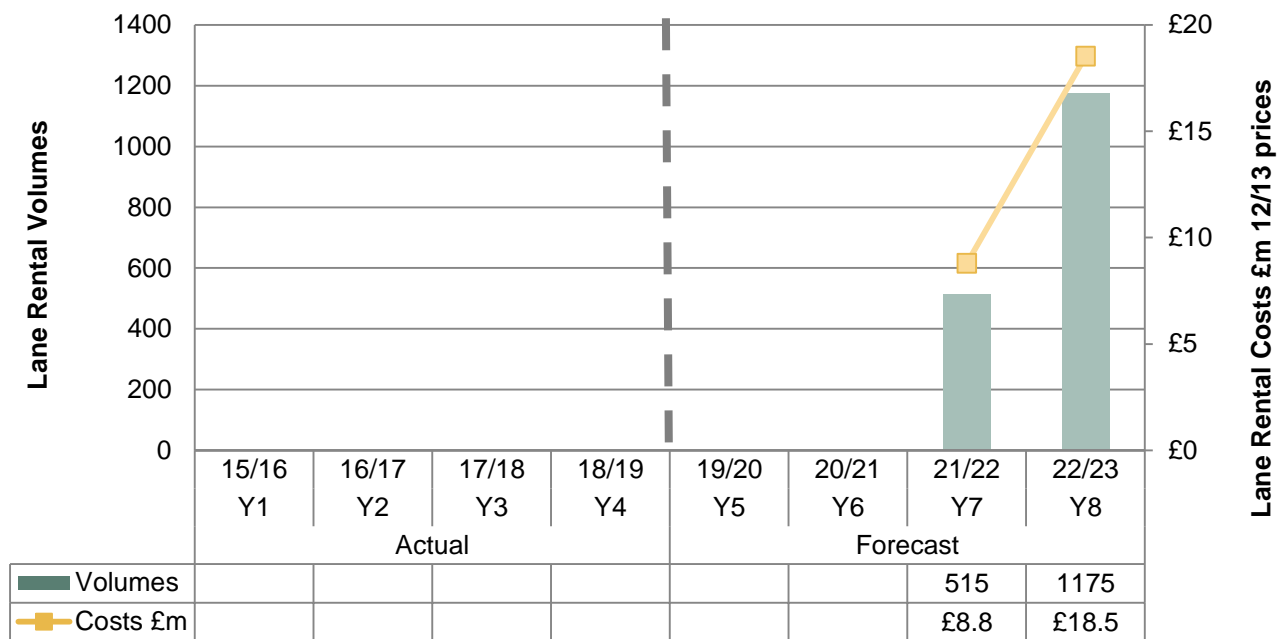


As Figure 4-1 illustrates, WPD expects the remaining noticing scheme authorities at the time of writing to move to a permit scheme arrangement by 1st April 2020 (start of Y6), in line with DfT guidance to HAS²⁴.

The insights set out in Section 3.2 have informed when WPD expects HAS to introduce lane rental schemes. Appendix 2, Table A2-1 to Table A2-3 presents our expectations on the roll-out of lane rental schemes by HAS in WPD's area and Figure 4-2 (below) sets out what this means in terms of the volumes of lane rentals and the subsequent impact on expected costs incurred across the WMID, EMID and SWEST licence areas combined.

²⁴ See Appendix 10

Figure 4-2 - RIIO-ED1 Lane Rental Volumes and Costs, Actual and Forecast, WMID, EMID and SWEST combined



A summary data file, which links through to detailed excel working files, is provided in Appendix 3.

The key assumptions and notes of presentation are as follows:

- All costs are presented in 2012/13 prices. Actual nominal costs have been used to project future costs, and then costs have been adjusted to 12/13 prices in the models.
- The actual volume of street works requiring permits for 2015/16 to 2018/19 have been used to calculate costs in these years. Forecasts workload volumes for years 2019/20 to 2022/23 have been based on the average of Y1-4 (ED1 to date), using average existing noticing scheme workloads for HAs where permits have not been in existence in all four years. It is assumed that future work load volumes requiring street works are consistent with the work load in ED1 to date;
- The key source of data for permit volumes in 2015/16-2018/19 is from WPD's Street Works system (Bentley EToN);
- Actual and forecast permit schemes fees and lane rental costs have been prepared on a year-by-year basis at a HA level;
- Street works costs on connections works that are re-chargeable to customers are not included in this claim;
- All remedial and penalty costs are excluded from this claim; and
- No adjustment has been made for real price effects as WPD expects to absorb these costs.

4.2 Permit Fees

4.2.1 Cost Summary

This Section identifies actual and forecast costs incurred by WPD associated with the payment of permit fees to HAs.

The permit fees are those actual and forecast costs payable to the HAs for the service the HA provides in assessing and then granting the permits and variations.

Table 4-2- Permit Fee Cost Summary, by licence area (£m 12/13 prices)

Permit Fee Costs £m, 12/13 prices	Actual				Forecast				ED1 Total
	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	
	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	
WMID	£0.1	£0.1	£0.1	£0.1	£0.3	£0.6	£0.6	£0.6	£2.6
EMID	£0.2	£0.2	£0.3	£0.4	£0.4	£0.6	£0.6	£0.6	£3.4
SWEST	-	-	-	-	£0.1	£0.5	£0.5	£0.5	£1.6
Total (WMID, EMID and SWEST combined)	£0.2	£0.3	£0.5	£0.6	£0.9	£1.7	£1.8	£1.7	£7.6

The permit fee costs set out in this Section (and in Table 4-2) assume that no lane rentals occur. Section 4.5 separately details the costs of lane rental schemes and it is in this later section that an associated reduction in permit fees in HAs where lane rental schemes are due to operate has been modelled.

The detailed modelling is presented in Appendix 4, Appendix 5 and Appendix 6.

4.2.2 Method of Calculation

The actual permit fee costs incurred by WPD for the first four years of RIIO-ED1 (2015/16 to 2018/19) have been calculated by multiplying the permit fees chargeable by each HA by the volume of work undertaken in the respective HA area.

The level of permit fee costs WPD expects to incur in the remaining four years of ED1 (2019/20 to 2022/23) has been forecast on a similar basis. Modelling assumptions on the future profile of permit fees have been developed for each respective HA, reflecting whether they currently operate a permit scheme and whether they currently charge the maximum fee rates as set by the DfT (see Section 3.1.3). It is anticipated that all HAs will be operating full permit schemes by March 2020 at the latest. Permit volumes for each remaining year of ED1 have been based on the average volume of work undertaken in the first four years of ED1, taking into account the assumed start date of the scheme.

Total volumes of variations by year in 2015/16-2018/19 are known and have been used to calculate the additional costs WPD has incurred to date as a result of the raising of variations. Forecast volumes of variations have been calculated using an annual average of number of variations expressed as a percentage of the total number of Street Works requiring permits for the first four years of ED1. This has been calculated for Midlands licence areas only because the SWEST currently does not operate permit schemes. SWEST forecast variations have been calculated using the same ratios of variations to forecast permit volumes as used in the Midlands licence areas.

Volumes have been reduced for Connections works to reflect that these associated permit costs are rechargeable to customers and therefore not borne by WPD.

For the schemes operated by the three HAs included in EMID's opening allowances (see Section 2.2.1), the associated costs incurred by WPD, actual and forecast, have been excluded from this claim.

4.3 Permit Set-up and Additional Administration Costs

4.3.1 Cost Summary

This Section identifies actual and forecast additional costs incurred by WPD associated with the introduction and set-up of permits and associated administration costs. The detailed modelling is presented in Appendix 7.

Table 4-3 – RIIO-ED1 Permit set-up costs and additional admin costs, by licence area, £m 12/13 prices

Set-up Costs and Additional Admin Costs £m, 12/13 prices		Actual				Forecast				ED1 total
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	
		15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	
WMID	Admin - Additional Technician office costs	£0.0	£0.0	£0.1	£0.1	£0.1	£0.2	£0.2	£0.2	£0.9
	Admin - Additional Records staffing requirements	£0.0	£0.0	£0.0	£0.0	£0.1	£0.1	£0.1	£0.1	£0.4
	Admin - Traffic Management Plan requirements	£0.0	£0.0	£0.0	£0.0	£0.1	£0.2	£0.2	£0.2	£0.7
	Admin - Team Support	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0	£0.1
	Admin - Training	£0.0	£0.0	-	£0.0	£0.0	-	-	-	£0.0
	Set-up costs - IT system changes	-	-	-	-	-	-	-	-	£0.0
	Set-up costs - Street Manager implementation	-	-	-	-	-	-	-	-	£0.0
	Total	£0.0	£0.1	£0.1	£0.1	£0.3	£0.5	£0.5	£0.5	£2.1
EMID	Admin - Additional Technician office costs	£0.1	£0.1	£0.1	£0.2	£0.2	£0.2	£0.2	£0.2	£1.4
	Admin - Additional Records staffing requirements	£0.0	£0.0	£0.1	£0.1	£0.1	£0.1	£0.1	£0.1	£0.7
	Admin - Traffic Management Plan requirements	£0.0	£0.1	£0.1	£0.1	£0.1	£0.2	£0.2	£0.2	£0.9
	Admin - Team Support	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0	£0.0	£0.1
	Admin - Training	£0.0	-	£0.0	£0.0	£0.0	-	-	-	£0.0
	Set-up costs - IT system changes	-	-	-	-	-	-	-	-	£0.0
	Set-up costs - Street Manager implementation	-	-	-	-	-	-	-	-	£0.0
	Total	£0.1	£0.2	£0.3	£0.4	£0.4	£0.5	£0.5	£0.5	£3.1
SWEST	Admin - Additional Technician office costs	-	-	-	-	£0.0	£0.2	£0.2	£0.2	£0.6
	Admin - Additional Records staffing requirements	-	-	-	-	£0.0	£0.1	£0.1	£0.1	£0.2
	Admin - Traffic Management Plan requirements	-	-	-	-	£0.0	£0.1	£0.1	£0.1	£0.3
	Admin - Team Support	-	-	-	-	£0.0	£0.0	£0.0	£0.0	£0.0
	Admin - Training	-	-	-	-	£0.0	£0.0	-	-	£0.0
	Set-up costs - IT system changes	-	-	-	-	-	-	-	-	£0.0
	Set-up costs - Street Manager implementation	-	-	-	-	-	-	-	-	£0.0
	Total	-	-	-	-	£0.1	£0.4	£0.4	£0.4	£1.2
Total (WMID, EMID and SWEST combined)		£0.2	£0.3	£0.4	£0.6	£0.9	£1.4	£1.4	£1.4	£6.4

4.3.2 Admin – Additional Technician Office Costs

Section 3.3.1.1.1 details the additional work required on permit schemes (above noticing schemes) that is undertaken by Technicians in WPD.

Technicians raise Major, Standard and Minor permits. The average time taken for each of these permits has been considered and multiplied by the actual number of permits raised in 2015/16-2018/19 and those forecast in 2019/20-2022/23 (consistent with those modelled for permit fee costs) and the average hourly pay rate for a WPD Technician.

4.3.3 Admin – Additional WPD Records Staffing Requirements

Section 3.3.1.1.4 details the extra work undertaken by the WPD Records team. Additional staff have been recruited to date and further staff will be recruited in 2019/20 onwards to deal with the increased workload from administering permits.

Four additional Records Assistants have been employed in the team to date and have been costed according to the average salary grade payments, plus employer pension and NI contributions and costs of additional IT equipment to support a new starter in this position.

The additional staff:actual permit volume ratio has been calculated and then applied against the forecast volumes of permits in 2019/20-2022/23 to calculate future additional Records staffing requirements. This calculated additional number of staff is multiplied by the average employment cost as above.

4.3.4 Admin – Traffic Management Plan Requirements

The requirement for Traffic Management Plans is detailed in Section 3.3.1.1.3.

The volume of permits requiring such plans is known in years 2015/16-2018/19, based on data from the Bentley system (those permits requiring 'traffic control (multi-way signals)'). These have been multiplied by the average cost of producing the plan.

The average cost includes the cost of producing a CAD drawing, and the cost to WPD and the contractor travelling to and attending site to jointly assess the project requirements for traffic control.

WPD has calculated the actual number of permits requiring such plans as a proportion of all permits in years 2015/16-2018/19. We have then applied this proportion to the forecast number of permits multiplied by the average unit cost (as above) to derive forecasts for 2019/20-2022/23.

WPD has only modelled costs incurred for producing Traffic Management Plans where multi-way traffic signals are required. We have not modelled costs on two-way signals and below. We have incurred costs on producing these plans, but are currently reviewing processes and systems to implement a revised in-house solution and to ensure CAD drawings are not provided unnecessarily. For straightforward works (up to two-way signals) where a HA requires a detailed plan as part of the permit assessment, we will then be able to provide these quickly and to an acceptable standard. This will not impact the costs forecast for production of more complex plans including multi-way signals.

4.3.5 Admin – Team Supports Costs

The work of 'Team Supports' and how this has been impacted by the roll-out of permits is explained in Section 3.3.1.1.2.

Team Supports raise permits on all Immediate Works. The average time taken for each of these permits has been assessed and multiplied by the actual number of Immediate work permits raised in 2015/16-2018/19 and those forecast in 2019/20-2022/23 (consistent with those modelled for permit fee costs) and the average hourly pay rate for a Team Support in WPD.

Work levels have also increased for Team Supports due to the checking of monthly invoices from all the permitting HAs. This has not been costed and included in this claim because the cost has been absorbed by the current staff who have worked to find team working efficiencies elsewhere.

4.3.6 Admin – Training costs

Training is required for relevant staff within a local area when HAs ‘go-live’ in that particular area. Training is delivered by in-house trainers who day-to-day work as Street Works Co-ordinators within the Records team. They can ensure that any new permitting areas have the benefit of best practice shared, where possible, from the local operating areas where permits are already in existence. However it should be emphasised that permit schemes differ across different HAs so some training has to be specifically tailored based on each scheme.

The training sessions held to date have been recorded (held just before each scheme went live) and have been costed based on the trainer costs and the standard attendees at each session (including Technicians, Team Supports, Planners and Team Managers) and their average hourly pay rates.

Forecasts have been prepared on the same basis but using expected start dates consistent with the permit fee costing modelling.

As all schemes are forecast to go-live by the first quarter of 2020, it is expected that all remaining training will be delivered in years 2019/20.

There may be refresher training required if schemes change. However it is assumed this cost is managed and absorbed and no further costs have been included for this.

No training costs have yet been assumed with regards to the implementation of the ‘Street Manager’ system, because of the ongoing uncertainties with regards to the content of this system (see Section 5.1.4).

4.3.7 Set-up Costs – IT System Changes

Some improvements were made to WPD’s internal works management system (Crown) prior to RIIO-ED1 to allow better management of street work permits and further improvements have been made in ED1. There is still further work to do because our current systems and processes are designed to manage notices, and have not been fully reviewed and amended to provide full functionality for all permit schemes, due to the complexity caused by the individual aspects of each HA scheme. The issue of national guidance in February 2017 (which improved consistency of approach) and the introduction in SWEST of permit schemes will provide an opportunity to continue our review and revision of working processes to provide consistency across WPD’s footprint in England. We have also held back on a full review given the expectation of the transition from EToN to Street Manager (see Section 4.3.8 below), to minimise the cost and risk of unnecessary change.

To date, the additional workload has been absorbed within the existing Information Resources (IR) team in WPD and has not required additional resource or software purchases.

No costs have therefore been included in this claim for IT system changes.

4.3.8 Set-up costs – Street Manager Implementation

The DfT intends to replace the existing EToN systems with a single cloud based internet system in England to be called ‘Street Manager’.

This system is still in development and the actual changes required to WPD’s interfacing systems are not yet known.

As it is a new system, there are likely to be training requirements for WPD and contractor staff. As this will also be a new system for HAs too, there is also potential for increased administrative handover costs.

Because of the uncertainties, no costs have therefore been included in this claim for additional costs arising from this system implementation.

Section 5.1.4 discusses WPD's engagement on the project, the ongoing uncertainties and future timescale in more detail.

4.4 Permit Condition Costs

4.4.1 Cost Summary

This Section identifies actual and forecast additional costs incurred by WPD associated with application of permit condition costs.

Table 4-4 - RIIO-ED1 Permit condition costs, by licence area, £m 12/13 prices

Permit Condition Costs £m, 12/13 prices		Actual				Forecast				ED1 total
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	
		15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	
WMID	Light Signals & Shuttle Working	£0.0	£0.1	£0.1	£0.1	£0.2	£0.3	£0.3	£0.3	£1.3
	Materials & Plant Storage	£0.2	£0.4	£0.5	£0.3	£0.3	£0.5	£0.5	£0.5	£3.4
	Consultation & Publicity	£0.0	£0.0	£0.0	£0.0	£0.1	£0.1	£0.1	£0.1	£0.5
	Total	£0.3	£0.6	£0.6	£0.5	£0.5	£0.9	£0.9	£0.9	£5.3
EMID	Light Signals & Shuttle Working	£0.2	£0.3	£0.4	£0.3	£0.3	£0.3	£0.3	£0.3	£2.4
	Materials & Plant Storage	£0.3	£0.4	£0.4	£0.2	£0.5	£0.6	£0.6	£0.6	£3.5
	Consultation & Publicity	£0.1	£0.1	£0.1	£0.1	£0.1	£0.1	£0.1	£0.1	£0.9
	Total	£0.6	£0.8	£0.8	£0.6	£0.9	£1.0	£1.0	£1.0	£6.7
SWEST	Light Signals & Shuttle Working	-	-	-	-	£0.1	£0.3	£0.3	£0.3	£0.8
	Materials & Plant Storage	-	-	-	-	£0.1	£0.5	£0.5	£0.5	£1.6
	Consultation & Publicity	-	-	-	-	£0.0	£0.1	£0.1	£0.1	£0.3
	Total	-	-	-	-	£0.2	£0.9	£0.9	£0.9	£2.8
Total (WMID, EMID and SWEST combined)		£0.9	£1.4	£1.5	£1.1	£1.6	£2.8	£2.8	£2.8	£14.8

The detailed modelling is presented in Appendix 8.

It should be noted that only three specific condition costs have been costed and forecast at this time. There are other conditions where WPD is incurring additional costs but which cannot be identified in reporting systems as specifically permit related. Because of this, this component of WPD's claim is likely to be understated. WPD plan additional system and process reviews to identify how these specific costs associated with permits can be better identified in the future.

4.4.2 Light Signals and Shuttle Working²⁵

Additional costs associated with the manual operation of temporary traffic signals on Dig and Lay jobs are incurred when operating in areas where a permit scheme is active due to compliance with the respective permit condition. Section 3.3.1.3.2 details the additional staff required under permits to man traffic lights.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.4.3 Materials and Plant Storage

Section 3.3.1.3.4 describes how one of the permit conditions specifies the removal of spoil from site daily, which creates additional costs for WPD equivalent to the cost of two operatives and a 'grab wagon' to carry out this task.

The number of permits issued with this condition in years 2015/16-2018/19 is known from reports generated from the Bentley system, which have been multiplied by the standard contract unit cost of two operatives and a 'grab wagon'.

The same approach is taken for the forecast years 2019/20-2022/23. The average proportion of permits issued with this condition to the total number of permits issued in years 2015/16-2019/20 has been calculated. WMID has had a higher proportion of jobs with this condition to date so the average proportion for EMID only has been used and applied to WMID, EMID and SWEEST in the forecast years. WPD is working to reduce the imposition of this condition in WMID and so expect forecast levels in future years to be more aligned with EMID.

²⁵ Shuttle working refers to a restriction of the carriageway to allow traffic to flow in one direction only at a time. This can be achieved without lights for short distances through a process of give way.

4.4.4 Consultation and Publicity

There are two elements to this condition which can cause WPD to incur additional costs on a project:

- The costs of **additional visits to site to display the permit reference number** on a board on site.



- **Publicity for proposed works such as letter drops, signs and press releases.** Costs are incurred for additional postage costs etc. The costs of these are considered insignificant and have not been assessed as part of this claim.

4.4.5 Time Constraints

Section 3.3.1.3.3 describes how additional costs are incurred both through the imposition of conditions that require out-of-hours or overnight working (which then means that staff and contractors receive out-of-hours payment rates) and the imposition of conditions that require specific working hours only and increase the amount of time need to complete a job.

These costs have not been included in this claim, as they cannot be specifically identified as due to permitting reasons only, for example out-of-hours work will take place to undertake urgent faults restoration and repair which are not driven by permit conditions. WPD plan additional system and process reviews to identify how these specific costs associated with permits can be better identified in the future. Analysis of data in WPD's Bentley system shows that the condition 'Time Constraints' has been applied to 2,358 permits (excluding Immediate permits) in ED1 to date.

4.4.6 Road Occupation Dimensions

This condition means that works can only take place within the footprint specified at time of application, unless a variation is applied for. Waiting for a variation could delay the starting of works on site. WPD seeks to minimise the costs of delayed productivity through wasted time on site by ensuring any variations are granted before staff and contractors arrive on-site. Therefore no such costs have been included in this claim.

4.4.7 Work Methodology

This condition requires the agreement of work methodologies in advance. This could cause additional costs associated with alternative or additional excavation, reinstatement, or traffic management techniques. Section 3.3.1.3.5 provides an example of additional cost associated with a condition restricting how much ground can be excavated at any one time. Such changes in work methodologies have generally not been separately identified in WPD systems as specifically driven by permit conditions and hence have not been included in this claim.

4.5 Lane Rental Fees

4.5.1 Cost Summary

This Section calculates costs forecast to be incurred by WPD associated with the introduction of lane rental fees by HAs.

There are no actual costs (years 2015/16-2018/19) included in this claim as no lane rental schemes are currently in operation in WPD's licence areas²⁶. However, as set out in 3.2 WPD are aware that HAs are considering introducing lane rental schemes within our licence areas before the end of ED1.

Table 4-5 - RIIO-ED1 Lane Rental Fee Costs, by licence area, £m 12/13 prices

Lane Rental Fee Costs £m, 12/13 prices		Actual				Forecast				ED1 Total
		Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	
		15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	
WMID	Lane rental fees	-	-	-	-	-	-	£5.0	£9.5	£14.6
	Permit Fee Deduction	-	-	-	-	-	-	-£0.0	-£0.1	-£0.1
	Total	-	-	-	-	-	-	£5.0	£9.5	£14.5
EMID	Lane rental fees	-	-	-	-	-	-	£2.0	£5.5	£7.5
	Permit Fee Deduction	-	-	-	-	-	-	-£0.0	-£0.0	-£0.0
	Total	-	-	-	-	-	-	£2.0	£5.5	£7.5
SWEST	Lane rental fees	-	-	-	-	-	-	£1.8	£3.6	£5.4
	Permit Fee Deduction	-	-	-	-	-	-	-£0.0	-£0.0	-£0.0
	Total	-	-	-	-	-	-	£1.8	£3.6	£5.4
Total (WMID, EMID and SWEST combined)		£0.0	£0.0	£0.0	£0.0	£0.0	£0.0	£8.8	£18.5	£27.3

The detailed modelling is presented in Appendix 4, Appendix 5 and Appendix 6.

4.5.2 Method of Calculation

The level of lane rental costs WPD expects to incur in the remaining four years of ED1 (2019/20 to 2022/23) has been forecast on the basis of multiplying forecast lane rental volumes by estimated lane rental fees for an estimated average duration of lane rental works.

The volume of work expected to be subject to lane rental charges in each HA has been based on the combined volume of permit and notice works that are Category 1 traffic sensitive works as an annual average across the first four years of ED1. The assumptions for roll-out in each HA are documented in Section 3.2.

Lane rental fees have been assumed at £2,500 per day based on the current maximum chargeable fee set by the DfT in their most recent guidance²⁷.

The average duration of lane rental works has been based on the average duration of permit and notice works that are Category 1 traffic sensitive works based on Street Works records from the first four years of ED1.

An associated reduction for permit fees in HAs where lane rental schemes may operate has been included in these costings for lane rental: permit scheme fees on Category 1 traffic sensitive roads have been excluded where it is assumed that a lane rental scheme will be in operation in that HA. This reduction is shown separately on the above table.

No other costs have been included to represent additional set-up, administration or productivity costs, due to the infancy of lane rental scheme design. WPD do however expect these to go above and beyond those set

²⁶ No lane rental fee costs have been forecast for Y5 and Y6 of ED1 based on WPD's current view of the expected roll-out of lane rental schemes (see Appendix 2).

²⁷ DfT (2018) [Lane Rental Schemes Guidance for English Local Highway Authorities](#), p.11

out in permit schemes; therefore it is likely that this component of the claim is an underestimate of future costs.

4.6 Customer Bill Impact

The current expected domestic customer bill is shown in the following Table 4-6. This sets out WPD's current forecast for the average domestic bill, before any adjustment is made to account for this street works claim.

Table 4-6- Average domestic bill £/pa 2018/19 prices

Average Domestic Bill £/pa, 2018/19 prices	20/21	21/22	22/23	23/24	24/25
WMID	£83.69	£82.30	£82.92	£77.17	£80.71
EMID	£80.40	£77.24	£77.93	£70.24	£73.43
SWEST	£109.61	£103.60	£103.84	£101.80	£108.30

Using the methodology in the RIIO-ED1 Price Control Financial Model (PCFM) and the expected timing of revenue adjustments through the Annual Iteration Process, WPD has calculated the additional bill impact for this claim for respective domestic customers per year in EMID, WMID and SWEST in Table 4-7.

Table 4-7 - Estimated bill impact £/pa 2018/19 prices

Estimated Bill Impact £/pa, 2018/19 prices	20/21	21/22	22/23	23/24	24/25
WMID	£0.41	£0.37	£0.63	£0.21	£0.21
EMID	£0.64	£0.26	£0.44	£0.18	£0.18
SWEST	£0.21	£0.36	£0.57	£0.17	£0.17

This bill impact is based on the total view of the claim in each of the licence areas (both permit schemes and lane rentals).

The detailed modelling is included in Appendix 9.

5 Future Outlook

5.1 Ongoing Risks and Uncertainties

This Section highlights risks and uncertainties, in both the working assumptions adopted in developing this claim and the wider context of street works.

5.1.1 Roll-out of Permits and Lane Rentals and Changes to Schemes

One of the major uncertainties is when and how quickly HAs who do not currently have permit schemes introduce them; with what fee structure; and then when any HAs will move to Lane Rental schemes.

Local council elections were held throughout England on 2nd May 2019, which resulted in many changes to overall control of city and borough councils. It remains to be seen whether this will change individual authority strategies on street works. Any future changes in central government policy could also change or accelerate the overall policy and roll-out for lane rentals, as well as changing specific existing legislation on permit conditions for example.

HAs can move very quickly to implement or change schemes (timing to design scheme, consult and then implement could be as short as four months).

Lane rental schemes in particular could introduce much more complex charging structures, with increasing sensitivities for both time and location. This will lead to increasing complexity in estimating (e.g. at design stage) and reporting costs.

5.1.2 Change to Welsh Government Policy

The Welsh Government '*National Approach for Road and Street Works in Wales*²⁸ published in June 2016 sets out a number of proposed work-streams which require further progress (see also 2.3.4). The revised timescales and impact of these proposals on WPD are not yet known.

Additional items currently in progress are alignment of the Street Works Training & Accreditation regulations, requirements for compliance with the Welsh Language (bi-lingual signage on street works) and integration of the Active Travel (Wales) Act 2013.

The DfT is proposing legislative changes to potentially both primary and secondary legislation to support the implementation of Street Manager. This may include the removal of EToN as the primary notification system from the ownership of the Secretary of State for Transport. The legal implications for the EToN System in Wales, and any other consequences of changes to primary legislation for Wales are not known at this time and will not be clear until the DfT publishes a consultation on this.

5.1.3 Roll-out of Electric Vehicles

Electric Vehicles (EVs) are becoming more commonplace on our roads. The trend towards them is set to increase.

The Government set a target in 2015 to "ensure almost every car and van is a zero emission vehicle by 2050"²⁹. In July 2017 the Government announced that "it will end the sale of all new conventional petrol and diesel cars and vans by 2040"³⁰. In May 2018 the Prime Minister announced a further target for 2040, that all new cars and vans should be "effectively zero emission"³¹ and in July 2018 the Road to Zero Strategy set an aspiration for "at least 50 per cent, and as many as 70 per cent, of new car sales and up to 40 per cent of new

²⁸ Welsh Government (2016) [National Approach for Road and Street Works in Wales](#)

²⁹ UK Government (2015) [Government pledges bold ambition for electric cars](#)

³⁰ UK Government (2017) [Plan for Roadside NO2 Concentrations](#)

³¹ UK Government (2018) [Prime Minister's speech at the Zero Emission Vehicle Summit](#)

van sales being ultra-low emission by 2030³². Alongside the sales targets, the Government has set a goal for the UK to be “a world leader in the development, manufacture and use of zero emission vehicles... [and] in the design, development and manufacture of batteries”³³ in the Automotive Sector.

As detailed in Section 3.4, WPD has engaged with HAs around EV charging to open dialogue around solutions to the impact this work will cause, including street works impacts.

There have been no sensitivities included in our modelling at this stage for any change in government policy for roll-out.

5.1.4 Implementation of Street Manager System

The DfT initiated a project in early 2017 to replace the existing EToN systems with a single cloud-based internet system in England to be called ‘Street Manager’.

The DfT’s vision for Street Manager is “*To transform the planning, management and communication of street and road works through open data and intelligent services to minimise disruption and improve journeys for the public*”³⁴.

Street Manager is being developed based on agile principles, in a move away from the traditional way national systems have been changed. In the past a technical specification was written and agreed (e.g. the EToN Technical Specification) with software providers providing a compliant product ready for a fixed implementation date when all parties needed to transition. Street Manager will have a Minimum Viable Product (MVP) ready for the start of the transition window, but will be continually developed, with a legislative transition end date to encourage parties to move over as early as possible in the window. The current timescale is:

- May 2019 - Private Beta phase commences
- Nov 2019 - Public Beta commences (Transition window starts)
- March 2020 - Full go live – backed by regulation (Transition window ends)

This innovative approach is welcomed; however the practicalities of developing internal IT systems to interface with Street Manager, and the associated review of processes to maximise efficiencies given the MVP has not yet been released by the DfT, provides some challenge for the purposes of this submission with regards to forecasting the cost implications of implementation.

WPD is fully engaged with the Street Manager project as outlined in Section 3.4. In summary, the WPD Street Works Policy Manager is a member of the project Steering Group representing all Street Works UK members, and the WPD Records team have a representative on the ‘Virtual Project Group’ to enable input into operational level system decisions. The WPD Information Resources team are also engaged with the Street Manager project team to enable IT solutions to be developed in time.

WPD is intending to participate in the private beta phase, as soon as suitable HA partners that are operating a permit scheme are also able to join. Private beta is run in parallel with existing EToN transactions being mirrored in Street Manager. WPD is keen to use this opportunity to develop, test and refine our system solutions and processes. We plan to minimise the impact of change on our operational teams, but will use the private beta period to develop and deliver any necessary training.

It is likely that there will be a need to supplement the Street Manager transactions with manual processes and manual data transfer (e.g. emails), as the MVP will be provide a system that allows us to work compliantly, but

³² UK Government (2018) [The Road to Zero Strategy](#), p.2

³³ UK Government (2018) [The Road to Zero Strategy](#), p.73

³⁴ DfT (2017) [Street Manager Vision](#), p.1

the additional functionality over and above legislative requirements will be future enhancements. We are also mindful of the expected permit scheme implementation profile and the additional burden this will place on our operations over the transition period.

Further to the system changes, any changes to the timing of notifications provide another level of risk and business change to enable compliance (see Section 5.1.5).

Once Street Manager is embedded and the functionality is further developed beyond the MVP, there will be clarity of benefits of the system from an operational efficiency perspective.

The Welsh Government has commissioned a third party advisor to assess options for the street works notification system in Wales. The current options are:

- Retain the current EToN system, but transfer 'ownership' to Welsh Government
- Transition to Street Manager
- Develop bespoke system for Wales

The advisors are not expected to provide a recommendation to the Welsh Government before the end of May 2019. We are anticipating a difference in systems in England and Wales, for at least the next twelve months.

5.1.5 Changes to legislation in England

The DfT has communicated that it will be publishing a consultation in summer 2019 around the legislative changes required to ensure the transition from EToN to Street Manager is covered in legislation. The detail of the consultation is currently not available, but we understand that it may cover changes to both primary and secondary legislation.

On review of the principles of Street Manager, we expect the consultation to cover aspects of the current noticing timescales to move away from 'end of next working day' to real time notifications. There are also possibilities around a wider scope of changes being brought into this consultation, given that the DfT has recently concluded a consultation on the Specification for the Reinstatement of Openings in Highways 4th Edition (SROH)³⁵ and there is an outstanding consultation outcome from the Code of Practice for Inspections. WPD always strive to monitor and influence any changes and manage these as effectively as possible.

WPD is leading the review of the Code of Practice for the Co-ordination of Street Works and Road Works and Related Matters 4th Edition³⁶, to incorporate the HAUC (England) Permit Guidance. This work should be completed to enable a full consultation in early 2020.

Given the lack of certainty around the changes to legislation, it is not possible to include cost forecasts for these in this submission. However any changes to legislation will have an impact on our internal IT systems, administration processes, training and contracts. We cannot predict how significant these costs will be, and how any changes will interface with the changes we need to implement for Street Manager (as a system), the continued roll-out of permits and the introduction of lane rental. We also need to ensure ongoing compliance with requirements in Wales.

5.1.6 Other Wider Street Works Changes

There are a number of initiatives in the Street Works arena that will impact WPD, both in cost and works delivery. Like the widespread roll-out of permit and lane rental schemes, these were not included in WPD's RIIO-ED1 Business Plan.

³⁵ DfT (2019) [Specification for the Reinstatement of Openings in Highways, Fourth edition](#)

³⁶ DfT (2019) [Code of Practice for the Co-ordination of Street Works and Works for Road Purposes and Related Matters](#)

These initiatives are not part of this claim; however, it is anticipated that when the level of certainty increases, further discussions will be initiated with Ofgem:

5.1.6.1 5 Year Guarantee Period

The DfT concluded a consultation on 6th May 2019 on the Specification for the Reinstatement of Openings in Highways 4th Edition (SROH)³⁷. The consultation contained a number of proposals of varying scope and significance.

A key proposal is to extend the current guarantee period for reinstatements from two years (or three years for deeper excavations) to five years in all circumstances. This would have a cost impact on all our contracts that involve excavation and reinstate works in the highway, which is not easily quantifiable at this point in time.

Other proposals include:

- Introducing new materials to aid compliance with air void requirements;
- Potential of introducing a preferred method for testing cores for air void compliance;
- Rationalisation of the process for introducing innovation;
- A new specification for micro-trenching;
- Guidance on works in sub-standard roads;
- Infills in modular surfaces;
- The permitted use of previously alternative materials; and
- The permitted use of large diameter coring 'Core & Vac'.

Only when the finalised version is published will WPD be able to assess the changes needed to ensure full compliance.

5.1.6.2 Inspections

The Code of Practice for Inspections was consulted on in April - June 2018³⁸. The revised Code has not yet been published, but there is crossover with requirements for Street Manager and may result in further changes made to these processes. Any changes to processes that require compliance with the HA require changes across our systems, processes and contracts. At this point given any requirements are unknown it is not possible to estimate costs.

5.1.6.3 Environment Agency Charging for Excavated Waste

In 2017, the Environment Agency (EA) indicated it wanted to enforce existing hazardous waste regulation in the utility sector more stringently; this would have resulted in most excavations requiring to be fully tested for hazardous waste. On behalf of its members, Street Works UK has worked with the EA to secure a Regulatory Position Statement (RPS) whilst a risk based protocol is being developed. A trial is currently underway to prove the effectiveness of this approach. This pragmatic approach will result in targeted testing of high risk sites, therefore reducing the excessive costs that a widespread testing infrastructure would need to be in place support the workload across all utilities. The work by Street Works UK is intended to give the EA confidence that our works methodology (and those of other statutory undertakers) protects the health of the environment. Where testing is needed, excavated waste (spoil) cannot be moved from site until the waste is properly classified as either hazardous or non-hazardous. This will not only add direct costs of testing, but also will increase durations of works possibly by a number of days; with Lane Rental charges applicable on relevant roads.

The RPS is in place until April 2020, and if the trial of the risk based protocol is successful, this will be adopted as business as usual across all utilities.

³⁷ DfT (2019) [Specification for the Reinstatement of Openings in Highways, Fourth edition](#)

³⁸ Available on request

If it is not supported by the EA, we will revert to compliance with WM3, involving testing at all sites. In this scenario the costs are expected to be significant, for both WPD and the wider UK economy.

5.1.6.4 Section 78 NRSWA – Contributions to Costs of Making Good Long Term Damage

The NRSWA 1991 has an un-enacted provision in Section 78 requiring an undertaker (utility) to contribute to the costs incurred, or likely to be incurred, by a HA where reconstruction or resurfacing works are needed following that utility's works.

The Act allows for any regulations to either provide for a contribution to the cost of a specific remedial works, or a general contribution (commonly known as a 'pot hole tax').

This cannot be implemented without enabling legislation, but there is constant lobbying from highway related organisations to the DfT to look at this. If this is introduced the costs would be significant.

WPD have noticed a trend from HAs to request additional reinstatement over and above that currently required. This could be a slightly larger area to half-width or full-width reinstatement, and this is particularly prevalent where WPD needs to carry out works in recently resurfaced highways.

As Chair of the Co-ordination Code Review Group, WPD has ensured that these requirements are clarified in the revised Code; the code highlights that there is no legislation in place to enforce this.

5.2 Outlook for the Next Twelve Months

The next twelve months will be a period of significant transformation for street works activity in England, and will affect our end to end processes for works in the public highway.

Table 5-1 summarises the changes WPD, and all utilities, are preparing for in the next 12 months.

Table 5-1 - Changes WPD are Preparing for in the Next 12 Months

Change	Expected Likelihood
Full roll out of permits in England	Certain
Implementation of Street Manager in England	Certain
Changes to Street Works legislation in England	Certain
Decision by EA regarding treatment of excavated waste	Certain
Introduction of Lane Rental in WPD area	Possible (Certain in 24 months)
Implementation of SROH 4th Edition	Certain
Implementation of revised Code of Practice for Inspections	Certain
Implementation of revised Code of Practice for Co-ordination	Certain
Decision by Welsh Government regarding notification system	Certain
Changes to Street Works legislation in Wales	Possible (dependant on what changes in England).

Further to this, it is possible that by the end of ED1, Section 78 may also be enacted.

During this time of change in the street works activity, WPD will be working with HAs to develop a transition programme for Street Manager, as well as keeping all other channels of communication open.

HAUC (England) is to set up a national Lane Rental Forum. The WPD Street Works Policy Manager has been nominated to represent the Electricity sector at this forum. It is expected the inaugural meeting will take place in the next few months.

5.3 Driving Efficiency into RIIO-ED2

Street works is heavily regulated and in this context, it is difficult to continually innovate in techniques and materials within the legislative constraints. As set out in section 5.1 there are a number of areas of uncertainty which could result in our street works costs being higher than forecast. However, improvements in ways of working and new technologies means that further efficiency gains should and can be obtainable in the future which will hopefully mitigate some of the additional unknown costs.

We are currently considering the following to demonstrate our continued commitment to efficient street works costs both now and in the future:

- Ongoing investment in fault finding equipment technologies to reduce the requirement for excavation;
- Development of new technological innovations to hopefully reduce the HAS' requirement for the manual control of traffic lights – development work is currently underway by one of our contractors, using new radar technology;
- Review of working practices with the Dig and Lay contractors, including electronic work packs and electronic invoicing, which will help to improve co-ordination of works and means that WPD's contractors will get information quicker and any updates will be real-time; and
- Increasing co-ordination with other utilities in WPD's licence areas to co-ordinate planning of street works (eg gas, water).

6 Assurance and Governance

In line with Data Assurance requirements, WPD has prepared an Irregular Submission report. The report does not form part of this submission but is available on request.

The claim and modelling has been prepared by a WPD Regulatory Analyst and Senior Regulatory Analyst. Data, analysis and forecast assumptions have been provided and then later reviewed by the WPD Street Works Policy Manager and two WPD Distribution Managers (who are the Senior Nominated Persons on the Dig and Lay contracts, and who also have managerial responsibility for works delivery in two regions of WPD).

Data and process reviews have been undertaken by other analysts in the Regulatory Finance team.

Senior Manager reviews have been undertaken, before overall sign off by the Finance Director.

7 Appendices

The following files support this re-opener submission.

Appendix	Title	File Type
Appendix 1	Status of Permit Schemes and Permit Roll-out Assumptions	In document
Appendix 2	Lane Rental Roll-out Assumptions	In document
Appendix 3	WPD Street Works Data Summary 310519	Excel
Appendix 4	WPD Street Works Permit Fees & Lane Rental Fees WMID 310519	Excel
Appendix 5	WPD Street Works Permit Fees & Lane Rental Fees EMID 310519	Excel
Appendix 6	WPD Street Works Permit Fees & Lane Rental Fees SWEST 310519	Excel
Appendix 7	WPD Street Works Admin & Set-up Costs 310519	Excel
Appendix 8	WPD Street Works Permit Condition Costs 310519	Excel
Appendix 9	WPD Street Works Customer Bill Impact 310519	Excel
Appendix 10	DfT Correspondence with HAs re Permit Schemes Jul 2018	PDF
Appendix 11		
Appendix 12	WPD Outstanding Achievement award	PDF
Appendix 13	Leicester City Council award nomination	PDF