

Electricity North West Uncertainty Mechanism Claim

Street Works Reopener
May 2019

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1. Executive summary

1 Executive summary

As part of the consultation process for the RIIO-ED1 price control it was determined to be in customers' interests that defined categories of uncertain costs would be better managed through an uncertainty mechanism as opposed to an ex-ante allowance.

Under Charge Restriction Condition 3F (CRC 3F) of the RIIO-ED1 electricity distribution licence, Distribution Network Operators (DNOs) therefore have the opportunity to apply to Ofgem for a revision to their opening levels of allowed expenditure on a number of uncertain cost activities.

This submission contains Electricity North West Limited's proposed adjustment to its allowed revenue in respect of Specified Street Works Costs, as defined in CRC 3F and version 5.0 of the Regulatory Instructions and Guidance (RIGs). We propose a relevant adjustment to allowed levels of expenditure of £12.16m (£10.33m in 2012/13 prices) to fund our efficient street works permit scheme costs incurred during the first four years of RIIO-ED1 and those costs expected to be incurred for the remainder of the price control period. We also make a proposal for the treatment of Lane Rental costs which may occur later in our current price control but for which we don't consider there is enough certainty to include a request for adjustment at this time.

Previously other energy network licensees have applied, and received funding, for Specified Street Works Costs as part of their price controls as they had similar reopener mechanisms for these uncertain costs. We support the use of uncertainty mechanisms to fund efficiently incurred costs to protect against the risks of windfall gains or losses for consumers and companies.

1.1 Specified Street Works

The costs of street works are ultimately borne by customers, through utility bills. It is therefore essential that they are undertaken in the most cost-effective manner possible. Policy measures designed to address congestion, such as the introduction of permit schemes, can often result in additional time and cost impacts for an organisation such as Electricity North West. The intent of a street works permit scheme is to deliver benefits for society through reduced disruption to road users. An indicative cost benefit analysis commissioned by the Department for Transport (DfT) suggested that "overall, the schemes generate a positive return to society, with a benefit to cost ratio of 1.34"¹.

The full definition of Specified Street Works, as per CRC 3F, is set out in paragraph 3.1 of this document but it essentially covers permit fee costs, one-off set-up costs, administrative costs and permit condition costs arising from the introduction of street works permit or lane rental schemes.

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/700502/permit-schemes-evaluation-report.pdf

1.2 Impact of Specified Street Works Costs on Electricity North West and its customers

Since the start of RIIO-ED1 Electricity North West has experienced a significant increase in the number of highway authorities operating permit schemes within its network area. At the start of the period only one highway authority partially within our network area (St Helens) was operating a permit scheme. This represented a maximum of 2% of Electricity North West's annual street works activities. At the time of this submission 18 out of the 19 highway authorities within our network area are now operating permit schemes, with the final authority (Cumbria) confirmed as going live during 2019/20.

We have set out below a high level summary of our eligible additional costs as well as details of the costs that we have excluded from our submission.

There are three main areas included in our funding submission (permit fees, permit administration costs and costs arising from the introduction of permit conditions) and two eligible but excluded items (one-off set-up costs and lane rental) for which we have not included any request for funding.

We propose that Ofgem considers a specific approach for a future application for lane rental costs as, although these are an eligible reopener costs, due to the current uncertainty around these costs we propose it is in consumers' best interests that a future funding request is facilitated by Ofgem.

1.2.1 Permit fee costs

Our permit costs reflect the fees paid to highway authorities in order to obtain the street work permits required to undertake our works.

For the first four years of the price control we have reported the actual permit fees paid. Our forecasted costs are based on our forecasted volumes for capital programme works (for underground cable replacement and reinforcement) as well as ongoing faults and maintenance work, as set out in our Business Plan and consistent with our regulatory reporting submission. Forecast work volumes in respect of overhead lines work have been excluded as these works will not typically involve any street works activity. We have not made allowance for any increases in permit fees despite being informed by both Lancashire County Council and Greater Manchester Road Activities Permit Scheme (GMRAPS), between them covering 11 out of the 19 highway authorities in our network area, that permit fee reviews are underway.

Full details of our cost and forecasting methodologies are set out in paragraphs 3.4.1 and 3.4.2 of this submission.

1.2.2 Administration costs

In order to assess our administration costs we have undertaken a detailed analysis of the various activities involved in the processing of permit applications and administering the payment of any penalties. For each permit administration task we have assessed only the additional time required compared to the equivalent task under a New Roads and Street Works Act noticing scheme. We have used this assessment to calculate the incremental administrative workload required to process a street works permit compared to a street works notice. We have only included in our submission the incremental costs for permit administration activities.

For the first four years we have measured our administration costs based on the volumes of permits raised. As with permit fee forecasting, we have forecasted our administration costs by multiplying our future expected permit volumes by our historic administration costs per permit.

Full details of our cost and forecasting methodologies are set out in paragraphs 3.5.3 and 3.5.4 of this submission.

1.2.3 Costs arising from the introduction of permit conditions

Permit condition costs are defined in the RIGs as the “additional costs of undertaking works resulting from permit conditions”. In order to assess the cost impact of permit conditions we have carried out a review of all of the national permit conditions, as defined within the “Statutory Guidance for Highway Authority Permit Schemes – Permit Scheme Conditions document”², to identify those conditions which require additional work compared to a noticing regime. Any conditions or similar requirements that would have applied to a street works notice have not been included in our submission. As a result of this detailed analysis we have identified four regularly occurring permit conditions which are the main drivers of additional costs to our business which didn’t exist under a noticing approach.

For the four conditions identified we have measured how much additional work is required (in hours) to ensure compliance with the relevant permit condition and applied the appropriate direct labour or contractor hourly rate to the volume of occurrences of that condition.

As with permit fees and administration costs we have forecast our condition costs by multiplying our future expected permit volumes by our historic condition costs per permit.

Full details of our cost and forecasting methodologies are set out in paragraphs 3.6.4 and 3.6.5 of this submission.

1.3 Not included in this re-opener submission

The following eligible cost items have not been included in our reopener submission;

- One-off set-up costs
- Lane rental

We set out the rationale for these exclusions in paragraphs 2.3 and 3.7 of this submission.

1.4 Minimising costs to consumers through our contractor strategy

Electricity North West uses a combination of its own workforce and contractor resource to deliver its business plan commitments. We have sought to minimise costs to our customers through careful contract management whereby we have negotiated all-inclusive rates with our contractors using a strong competitive tender process. This provides the best value to our customers as both Electricity North West and our contractors are aligned to managing the impact of street works as efficiently as possible.

²

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/413643/statutory-guidance.pdf

Electricity North West's existing frameworks for underground cable installation expire on 31 March 2020. The competitive tendering process commenced earlier this year. The value of the new frameworks is significant and is governed by the strictures of OJEU legislation. Tenders were returned to Electricity North West on 17 May 2019 and are currently being analysed. It is not possible at this stage to share pricing information from the tender due to the complexity and very preliminary stage of us populating the pricing model. There is however an anticipation of a significant increase in those rates that are impacted by changes in street works legislation. Despite this we have not reflected this in our forecasting as the competitive tender process is still ongoing.

1.5 Conclusion

Electricity North West has carried out a comprehensive review of its street works undertakings and is confident that its submission is an accurate and robust quantification of the additional eligible efficient costs of £10.33m (2012/13 prices) incurred, or expected to be incurred, as a result of the widespread implementation of permit schemes across the North West of England since our allowed levels of expenditure were set. The costs included have been carefully assessed for their eligibility. Additionally, some areas represent ongoing cost risks we expect to manage, such as upward permit fee revisions and increasing contractor rates. The most significant area of risk is lane rental costs which may be substantial and for which we propose a logging up approach and reopener at the start of RIIO-ED2. Our suggested approach to lane rental seeks to protect our customers from the risk of over funding us for work that might not need to be done and preserves the street works approach from Ofgem's RIIO-ED1 strategy decision.

Our proposed adjustments (£m, 2012/13 prices) in respect of Specified Street Works Costs, as defined in Charge Restriction Condition CRC 3F of the Electricity Distribution Licence, are as follows:

Financial year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Totals
Permit fees	■	■	■	■	■	■	■	■	2.99
Administration	■	■	■	■	■	■	■	■	1.69
Condition costs	■	■	■	■	■	■	■	■	5.65
Totals	1.09	1.16	1.45	1.35	1.27	1.37	1.34	1.30	10.33



2. Background to street works permit and lane rental schemes and the impact on Electricity North West's output commitments

2 Background to street works permit and lane rental schemes and the impact on Electricity North West's output commitments

Street works are a vital part of ensuring safe, secure and reliable network services, which underpin the UK economy and make a major contribution to economic growth. Permit and lane rental schemes have been introduced as methods to reduce disruption caused by works in the public highways. Permit schemes have been gradually rolled out throughout the UK from January 2010 and throughout the north west of England since 2012. Electricity North West is supportive of the objectives of both permitting and lane rental and always seeks to carry out its works in accordance with the relevant legislation. Compliance with street works legislation has, however, led to additional operating costs that were not quantifiable at the start of RIIO-ED1. As permit schemes are now widely implemented across our region we have gained clarity of the impact on our operating practices and associated costs.

2.1 Permit schemes

Part 3 of the Traffic Management Act (TMA) 2004³ introduced permit schemes as a method to better manage activities in the public highway, including street works, and to improve highway authorities' ability to minimise disruption from road and street works.

Permit schemes can be mandated by highway authorities as an alternative to the notification system of the New Roads and Street Works Act (NRSWA) 1991, and require utility companies such as Electricity North West to apply for permission to undertake street works on the highway by obtaining a permit from the highway authority. This is in contrast to the notification system that previously existed under the New Roads and Street Works Act where a utility company merely had to inform the relevant highway authority of its intention to carry out works.

Once a permit is granted the utility company is then able to carry out the specified activity, at the specified location, between the dates shown on the permit, and subject to any conditions the authority may require to be included.

A highway authority may choose to implement a permit scheme on all or some of the roads under its control.

Electricity North West always seeks to minimise disruption to customers as a consequence of its works. However as the electricity network comprises both underground and overhead apparatus it is inevitable that that some incursions of the highway are necessary in order to restore, reinforce or maintain security of supply to our customers.

Electricity North West always ensures that accurate street works permits are in place for its works and that these works are delivered safely and with minimal disruption through effective planning, coordination and delivery. This includes traffic management, which is utilised for the shortest duration to avoid unnecessary occupation of the highway. As an organisation we are focused on innovation, continuous improvement, high-quality outcome delivery and promoting a 'right first time' culture, which is particularly relevant to our street works activities.

³ <http://www.legislation.gov.uk/ukpga/2004/18/part/3>

2.2 Permit schemes in Electricity North West's network area

At 1 July 2013 only one highway authority in Electricity North West's network area (St Helens) was operating a permit scheme. Electricity North West only operates in a small area of the St Helens road network. Since then a further 17 highway authorities have introduced permit schemes, and the final one, Cumbria, has confirmed that it will be implementing a permit scheme during 2019/20.

Due to the low penetration of permit schemes at the start of the price control period Electricity North West received minimal funding for street works permit costs as part of its RIIO-ED1 Final Determination. We did, however, confirm that we expected a significant increase in costs as a result of permit scheme implementation, and indicated that we would be likely to submit an application under the RIIO-ED1 reopener mechanism. We have maintained dialogue with Ofgem concerning our intent and have been diligently collecting supporting reopener data during RIIO-ED1.

Table 1 below shows the progression of permit schemes throughout our region since 2013.

Table 1: Timing and rollout of permit schemes throughout Electricity North West's network area

Date	Cumulative total of HAs operating permit schemes within the ENWL area	Schemes launching during the year	Launch date
1 April 2013	1	St Helens	10/04/2012
1 April 2014	11	GMRAPS ⁴	29/04/2013
1 April 2015	15	Cheshire East Warrington Lancashire Derbyshire	01/10/2014 02/02/2015 09/03/2015 31/03/2015
1 April 2016	15	N/A	N/A
1 April 2017	16	Blackburn	17/01/2017
1 April 2018	17	North Yorkshire	07/02/2018
1 April 2019	18	Blackpool	11/03/2019
1 April 2020	19	Cumbria	By 31/03/20

⁴ GMRAPS (Greater Manchester Road Activities Permit Scheme) is a joint permit scheme covering the full highway network for the following ten highway authorities; Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan. Decisions regarding permits, how the scheme operates and enforcement are taken by the ten Greater Manchester Authorities, either collectively or individually as appropriate. Administrative functions are generally carried out by a central administrative team under the control and ownership of Traffic for Greater Manchester (TfGM).

TfGM assists in coordinating street works carried out on the "Central Manchester Key Route Network" and issue the permit invoices for all ten Greater Manchester highway authorities. They then collect and distribute the permit fees after deducting their own administration costs. This centralised administrative function is effectively paid for by those who request permits as part of the overall permit fee for each works.

Table 2: Permits raised 2012/13 to 2018/19

2.3 Lane rental

Lane rental should only apply to the most congested roads at the busiest times. The DfT has stated that, ordinarily, schemes should cover no more than 5% of the individual highway authority's network, although a business case can be made for a larger area in exceptional circumstances. Each scheme may have its own scale of charges, which can vary from £800 to £2,500 per day per permit served.

2.3.1 Impact of lane rental on costs and working practices

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- [REDACTED]

2.3.2 Lane rental in the North West of England

As part of the response to the DfT's 2017 consultation five unnamed North West highway authorities indicated their intentions to implement a lane rental scheme at their earliest opportunity. As part of our ongoing stakeholder engagement we formally contacted all 19 highway authorities in our area to understand their intentions regarding lane rental. [REDACTED]

We also contacted the DfT to request information on the state of development of any potential lane rental scheme by any North West highway authorities. [REDACTED]

We consider there is a potential of lane rental schemes starting in our area towards the end of RIIO-ED1, though we cannot currently put forward a high-confidence cost breakdown for them due to the current level of uncertainty. We have therefore not included any proposed adjustment for lane rental within our submission because we are not satisfied at this time that the costs are sufficiently certain for them to be added to our customers' bills.

From the licence drafting of CRC 3F, where lane rental costs are eligible to be included, we consider it is not Ofgem's strategic intent that companies face the risk in respect of lane rental. As a consequence we propose that, if and when any efficiently incurred costs arise as a result of lane rental, a logging up mechanism of any additional costs incurred in RIIO-ED1 should be put in place and ex-post funding provided in RIIO-ED2. Subject to Ofgem's feedback, we will collate and record all incremental street works costs for lane rental (as set out in CRC 3F) and propose these be considered as an uncertain cost funding request similar to the process for the current street works uncertain costs submission. We will log these up by 31 March 2023 and submit these for Ofgem consideration in Year 1 of RIIO-ED2. Any development to how the street works cost uncertainty mechanism works should be developed with input from all stakeholders including highway authorities, the DfT, network companies and customers.

2.4 Impact on Electricity North West's Output Commitments

Under the RIIO-ED1 framework Electricity North West has committed to deliver a range of outputs in order to deliver a reliable and sustainable network at a cost that provides excellent value to our customers and supports our collective ambitions for a low carbon future.

Our network consists of 13,000 km of overhead line and 44,000 km of underground cable and it is therefore inevitable that there will be occasions when, in order to provide a reliable and resilient service to our customers, work will need to be undertaken in the public highways.

As set out in paragraph 2.1 permit schemes have been introduced by highway authorities as a method to better manage activities in the public highway, including street works, and to improve highway authorities' ability to minimise disruption from road and street works.

Our key outputs that are impacted by street works legislation include:

Output	Commitment	Street Works impact
Reliability	Improve overall reliability – customer interruptions	We have committed to reducing the number of interruptions that our customers experience. In order to replace or reinforce underground networks access to the highway is frequently required.
	Improve overall reliability – customer minutes lost	We have committed to minimise where possible the disruption caused to our customers by power cuts. Finding and fixing faults frequently requires us to access the highway
	Network health – fault rate	We have a business plan commitment to a programme of replacement for poor performing sections and lengths of pressurised underground cable.
Environment	Reduce lost oil from cables	We have an environmental commitment to a replacement programme for oil filled cables, reducing both the volume of oil in service and associated leakage

All the above works require us at certain times to access the highway and, where applicable, to apply for a permit to undertake our works and to comply with any associated conditions. We have set out in Chapter 3 the impact that this has on our costs, and our methodology for quantifying this impact over the RIIO-ED1 period to date, as well as our forecasted costs for the remainder of the period.



3. RIIO-ED1 Licence requirements and details of Electricity North West's proposed adjustments

3 RIIO-ED1 Licence requirements and details of Electricity North West's proposed adjustments

As part of the consultation and decision-making process for the RIIO-ED1 price control it was determined that some categories of uncertain costs would be better managed in consumers' interests via an uncertainty mechanism compared to setting an ex-ante allowance.

Under Charge Restriction Condition 3F (CRC 3F) of the RIIO-ED1 electricity distribution licence, Distribution Network Operators (DNOs) therefore have the opportunity to apply to Ofgem for a revision to their allowed revenue for expenditure incurred and expected to be incurred in a specified set of areas of where costs were uncertain when the RIIO-ED1 price control was determined.

Charge Restriction CRC3F sets out the details of the agreed uncertain costs activities, one of which is "Specified Street Works Costs".

3.1 Definition of Specified Street Works

Specified Street Works Costs are defined in CRC 3F as:

"the costs incurred, or expected to be incurred, by the licensee in complying with obligations or requirements arising under any order or regulations made under Part 3 of the Traffic Management Act 2004 (or, in Scotland, the Transport (Scotland) Act 2005) that impose a permit scheme, lane rental scheme or equivalent and comprise:

- (a) permit fee costs;
- (b) one-off set-up costs;
- (c) administrative costs arising from the introduction of permit schemes or equivalent and lane rental schemes or equivalent; and
- (d) costs arising from the introduction of permit conditions or equivalent and lane rental schemes or equivalent,

all as further clarified in the RIGs."

Only costs incurred in respect of permit or lane rental schemes introduced after 1 July 2013 (or where 12 months of data was unavailable at that date) are eligible for inclusion in any reopener submission.

3.2 Submission criteria

Paragraph 3F.8 of the RIIO-ED1 Charge Restriction Conditions states that any submission made under CRC 3F in respect of Specified Street Works must;

- be based on information about the actual or forecast level of efficient expenditure on the uncertain cost activity that was either unavailable or did not qualify for inclusion when the licensee's Opening Base Revenue Allowance was derived;
- take account of any relevant adjustments previously determined under this condition;
- constitute a material amount as specified for the licensee (£6.21m in 2012/13 prices for Electricity North West Limited)
- relate to costs incurred or expected to be incurred after 1 April 2015; and

- constitute an adjustment to allowed expenditure that (excluding any Time Value of Money Adjustment) cannot be made under the provisions of any other condition of the licence.

This chapter sets out how our costs requested in this submission meet these requirements, starting with identifying the relevant costs under items a) to d) in paragraph 3.1.

3.3 Fulfilment of submission criteria

When Electricity North West's Opening Base Revenue Allowance was determined it included a small allowance in respect of the St Helen's permit scheme. There was no allowance for any other street works permit schemes because at the time our Well Justified Business Plan was submitted we did not have 12 months' of data (GMRAPS) or the schemes were not yet live (all other schemes).

Our proposed adjustment exceeds Electricity North West's materiality threshold of £6.21m (2012/13 prices) and we have not received any previous adjustments under CRC 3F.

This submission and our proposal for relevant adjustment to allowed level of expenditure is based only on costs incurred or expected to be incurred between 1 April 2015 and 31 March 2023. All costs incurred before this date and those in respect of the St Helens permit scheme have been excluded. We have demonstrated throughout this submission how we deem the proposed adjustment to reflect efficient expenditure on street works activity and explain in detail our calculations of actual and forecasted costs.

There is no other licence condition that allows for this adjustment.

3.4 Permit fees

In order to meet the costs of introducing and operating permit schemes highway authorities have the ability to charge a fee for granting a permit and to impose further fees for any subsequent variation to that permit. Quarterly invoices are issued to each statutory undertaker, with all permits being referenced and the associated fees being stated.

Each highway authority has a published permits fee matrix. Permit fees vary slightly across different permit schemes and will depend on a number of factors specific to the works in question; most notably the volume of traffic on the highway, the timing and location of the works and the duration of the works. Permit fees can be reviewed by the operating highway authority every three years but cannot be set at a level that exceeds the maximum allowable fee as set by the DfT.

We have set out in Appendix 3 the range of fees charged by the highway authorities in whose areas Electricity North West operates.

Each highway authority has its own scheme governance document (example below)⁵ that explains how it will operate its permit scheme, including the network coverage of the schemes and the charging structure. All permitting authorities within the Electricity North West's area operate schemes that require permits for all works, on all streets, at all times. Permit fees across the various

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<http://gmrap.org/documents/Scheme%20Document%20V3%20applicable%20from%201st%20Oct%2015.pdf>

North West schemes are also similar and a number of permit fees are already set at or near the maximum allowable level.

3.4.1 Methodology for calculating permit fee costs (2015/16 to 2018/19)

Permit costs for these years are the costs as invoiced to Electricity North West by its highway authorities for all chargeable permits.

The number of chargeable permits is obtained via a Symology Insight report. Symology Insight is the system that Electricity North West uses to communicate electronically with local authorities regarding our activities on the highway.

The cost of chargeable permits and associated permit variations is derived from a SAP® report. We use SAP® to record details of all the monetary transactions associated with street works activities.

3.4.2 Methodology for forecasting permit fee costs (2019/20 to 2022/23)

Our forecasted permit fee costs for 2019/20 to 2022/23 are based on forecasted volumes for capital programme works (for underground cable replacement and reinforcement) as well as future faults and maintenance work volumes, as set out in our Business Plan and consistent with our regulatory reporting submission. Forecast volumes in respect of work such as overhead lines work have been excluded as these works will not typically involve any street works activity.

The permits raised between 2015/16 and 2018/19 have been categorised between capital, faults and maintenance works. We have then used the forecasted workloads required to meet customers' needs and deliver our outputs for these areas of our activities to forecast the volumes of permits we expect to raise for the remainder of RII0-ED1.

To enable us to forecast permit costs we have used the average permit cost from the first four years of the price control. We believe this is the most appropriate method of forecasting as we expect the split of permits types averaged over the first four years to be representative of future splits.

3.4.3 Impact of permit fee increases

The Statutory Guidance for Highway Authority Permit Schemes requires highway authorities to review their permit schemes annually for the first three years of the scheme's operation and then again on a three year cycle. A review should report on the effectiveness of the scheme against stated performance criteria and also consider the traffic sensitivity designations applicable to the road network and the level of permit fees charged by the authority.

In principle permit fees should be set at a level that ensures that the authority recovers its costs in processing the permit and administering the works. The operation of the overall scheme itself cannot be allowed to be in deficit, nor can it result in significant levels of profit.

As part of our ongoing stakeholder engagement we have consulted with all North West highway authorities to understand their intentions regarding permit fee increases. Lancashire County Council has confirmed that it will be increasing its permit fees in the near future but has been unable to provide us with detail of its proposals.

Although it is reasonable to expect some level of permit fee increases before the end of RII0-ED1, it is not currently feasible to estimate the level of additional cost impact and we have therefore excluded this from our submission and will manage it as an upwards cost pressure that needs to be offset.

3.4.4 Permit fee costs - materiality

Table 3 below sets out our proposed adjustments for permit fee costs for each year of RII0-ED1. For each year we have set out the number of permits applied for (2015/16 to 2018/19) or forecast (2019/20 to 2022/23), and the fees incurred (or expected to be incurred).

Table 3: Permit fee costs (nominal prices)

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
No of permit schemes	15	16	17	18	18	19 ⁶	19	19	19
No of permits per year	7614	7266	9289	9990	8282	9018	8866	8669	68,994
Net cost of permits									£3,503,901
Average fee per permit									

3.5 Permit and lane rental administration costs

Permit and lane rental administration costs are defined in CRC 3F as “Administration costs arising from the introduction of permit schemes or equivalent”. They are further defined in Annex A to the Regulatory Instructions and Guidance as “The costs from processing Permit and Lane Rental applications and processing the payment of associated penalties”.

The introduction of permit schemes has caused an increase in administration for utility companies. Under a permit scheme Electricity North West, as the works promoter, has to request permission to work on the highway whereas previously, under noticing schemes, it was simply a case of notifying the highway authority of our intention to carry out works.

Failure to issue a timely and accurate permit application means there will be delays in commencing works and, in certain circumstances, could constitute an offence under the Traffic Management Act 2004. This can result in the issue of a Fixed Penalty Notice (FPN), or a prosecution, and associated costs. It will also increase the administrative time involved due to the need to liaise directly with the highway authority and to process a revised permit application.

It is mandatory for all permit applications to contain accurate data and this is an integral component in allowing a highway authority to coordinate works across its road network by the different companies that need to work in the highway. It has become commonplace for highway authorities

⁶ Cumbria County Council has confirmed its permit scheme will go live during 2019/20. We have therefore assume a go-live date of 1 April 2020

to require increasing amounts of detail and information with a permit application to enable them to undertake their traffic management duties.

We have set out below the methodology we have applied to assess the associated costs.

3.5.1 Costs of processing permit applications

This is the process for producing a permit at “desk top” level, ensuring it contains all relevant information, inputting this into the Symology Insight permit system and sending it (electronically) to the receiving highway authority as a permit application. It also includes the resolution of any queries or challenges that may relate to this permit and the administration associated with validating and paying the subsequent invoices.

As part of its “right first time” ethos Electricity North West takes a proactive approach to the application of permit conditions in order to reduce the number of Permit Modification Requests (PMRs) and Authority Imposed Variations (AIVs) and their associated administration. Paragraph 3.6.1 sets out this approach in more detail.

3.5.2 Costs of processing the payment of associated penalties

This is the process for receiving, logging and validating any Fixed Penalty Notices (FPN) or S74 charges associated with chargeable permits.

When a permit penalty is received (in the form of an FPN or S74 overrun notification) this arrives electronically via the Symology Insight permit system (often with a separate covering email) and is initially logged and investigated by the Electricity North West Street Works Administration team. There is then a penalty review and validation process in order to determine whether to dispute or accept the FPN or S74 charge and whether any form of permit variation or amendment is required.

The Electricity North West Street Works Quality and Compliance Officers are also consulted in determining the validity of complex FPNs or S74 charges or to confirm the requirement for a permit variation or modification.

While the penalty payment costs themselves are not included in our reopener submission, the associated administration costs of processing them are eligible and have been included.

3.5.3 Methodology for calculating permit administration costs (2015/16 to 2018/19)

Since our baseline allowances were set the structure of the Electricity North West Street Works team has evolved to accommodate the additional activities relating to the processing of permit applications and the management of any associated penalties. Initially the core Street Works team consisted of four staff administering the existing noticing schemes as well as the payment of permit invoices and attending to the recovery of permit penalties from the contractors. They also undertook a variety of other street works tasks unrelated to the administration of permit schemes (for example defect management, resolution of customer enquiries). As permit schemes became more widespread throughout our region it has been necessary to recruit additional staff to the Street Works team and it now consists of seven staff who deal principally with the administration of permit applications and penalties, as well as three Street Works Quality and Compliance officers and two Street Works Auditors whose principal duties relate to permit condition compliance.

In order to assess our administration costs we have reviewed the various administration activities involved in the processing of permit applications and the payment of associated penalties. For each administration task we have assessed and measured the additional time required compared to the equivalent task under a noticing scheme, as well as the time in respect of activities that were not required at all under a noticing scheme.

[REDACTED]

[REDACTED]

[REDACTED]

3.5.4 Methodology for forecasting permit administration costs (2019/20 to 2022/23)

As with permit fee costs our permit administration costs for 2019/20 to 2022/23 are based on forecasted volumes for capital programme works (for underground cable replacement and reinforcement) as well as anticipated faults and planned maintenance work, as set out in our Business Plan and consistent with our regulatory reporting submission.

In order to forecast our administration costs for processing permit applications we have analysed our administration costs for the first four years of RIIO-ED1 and calculated the average cost of administration per permit for each year. We have used the 2017/18 average administration cost for forecasting as this was the lowest administration cost per permit achieved to date and we consider this to represent a cost target we should set ourselves going forward. We have increased this cost in line with RPI for the remaining years of the price control in line with expected salary inflation.

[REDACTED]

3.5.5 Permit administration costs – materiality

As set out in paragraph 3.5.3 we have only included the incremental time costs of permit scheme administration in our submission. This relates to the additional time required to apply for and process a permit, respond to any queries/challenges, and the validation and payment of the associated invoices. There is also additional time incurred in the requirement for pre-site visits and the submission of traffic management plans.

Table 4 below sets out our administration costs for each year, and the average administration cost per permit.

Table 4: Administration costs related to processing permit applications and the payment of associated penalties (nominal prices)

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Administration costs									£1,975,273
Average administration cost per permit									

3.6 Costs arising from the introduction of permit conditions

Compliance with permit conditions can result in increased costs by placing additional requirements on utilities. A number of the National Standard Permit conditions were not required under the New Roads and Street Works Act 1991 (NRSWA) noticing regimes and have only arisen as a direct consequence of permit schemes introduced under Part 3 of the Traffic Management Act 2004 (TMA).

Failure to comply with a condition that is recorded on the permit is an offence under the Traffic Management Act and will result in the issue of a Fixed Penalty Notice (FPN). It can also result in prosecution and an associated fine.

The DfT issued the “Statutory Guidance for Highway Authority Permit Schemes – Permit Scheme Conditions” document in October 2015. This states that any highway authorities that impose conditions can only use the conditions set out in this statutory guidance document. Prior to the introduction of this statutory guidance each highway authority’s permit scheme was able to have its own “scheme specific” conditions which, although broadly similar, did differ across the various schemes both in wording and requirements. The guidance document standardises the conditions that can be attached to a permit and defines the standard prefix (for example NCT04a) that must be recorded on the permit to denote the agreed application of the condition, for example:

EToN Ref: 4 - Material and Plant Storage

NCT04a - Removal of surplus materials/plant

Condition Text

For the activities hereby permitted, it is a condition of this permit that all remaining excavated or stored backfill materials and/or any unemployed plant must be removed from the public highway within (x hours e.g. 24) or by the stipulated time (e.g. at the end of the working day or prior to the site being un-occupied) due to (stipulate reasons for application condition).

Guidance

This condition should be attached to permits where it is necessary to limit the area taken up by and/or plant may cause problems on site such as congestion. It should be location specific and must not be applied to all permits. It is good practice to include the site specific reason for attaching the condition.

Authorities must ensure that timeframes are reasonable to ensure that this condition can be met - where x = 1 this may be deemed as unreasonable and impractical.

Example of shorthand text

NCT04a - surplus material to be removed by 18.00 each day as close to school.

3.6.1 Electricity North West approach to the application of permit conditions

Electricity North West has developed and implemented an approach to assessing and recording permit conditions that is in accordance with the guidance document “Operation of Permit Schemes (inc. Permit Condition Text)” as issued by Highway Authority and Utility Committee (HAUC) (England) in February 2017 and aligned with recognised industry best practice.

HAUC (England) is the senior industry body representing works promoters and highway authorities. The guidance document sets out the expectations of HAUC (England) and the DfT for the operation of permit schemes.

Within Part II of the HAUC document (“Use of Permit Condition Text”) it states that *“It is highly recommended that permit applications include any conditions that the work promoter feels are appropriate for the works being undertaken”*.

Accordingly, for a significant number of permit applications submitted by Electricity North West the relevant permit conditions are included on the initial permit application.

For planned works the assessment of permit conditions is supported by a pre-works site visit where all required permit conditions are recorded so that they can then be included in the permit application. For immediate permits (which are typically issued for faults and other such emergency or urgent works) all known or reasonably expected conditions are recorded on the initial permit application where this is practical to do so. By adopting this “right first time” approach, Electricity North West seeks to minimise volumes of Permit Modification Requests and Authority Imposed Variations for both planned and immediate works.

If, following a review of a permit application, the highway authority considers that changes are needed then a Permit Modification request (PMR) will be issued. This will require the utility company to assess the PMR and to formally respond by modifying and resubmitting the permit application. If a Highway Authority needs to make a change to a granted permit it can do so by sending the utility company an Authority Imposed Variation (AIV). This will require the utility company to assess the AIV and to formally respond by varying and resubmitting the permit application.

Our right first time approach for both planned and immediate works seeks to ensure that the initial permit application contains all relevant and appropriate permit conditions to maximise efficiencies through reduced administration for all parties and to facilitate effective traffic management. It reduces potential delays in granting the permit (which might prevent work being scheduled and delivered) by reducing the likelihood of the highway authority refusing the application or requesting a PMR. It also reduces the likelihood of AIVs being issued after works have commenced and ultimately ensures that the wider consumer benefit from appropriately managed street works is delivered.

3.6.2 Permit condition compliance

Once any of the national standard conditions are recorded on a permit and have not been challenged by the highway authority they will be accepted as required and Electricity North West will have to comply with the conditions throughout the duration of the works. Failure to do this may result in a Fixed Penalty Notice (FPN).

In order to monitor permit condition compliance highway authorities undertake additional site inspections above and beyond the established reinstatement and signing and guarding compliance inspection regime. The inspections are designed to ensure that a correct and accurate permit is in place for the works and that all stated conditions are being complied with. In addition to this Electricity North West undertakes, via its internal Street Works Compliance team, random site inspections to monitor permit compliance. Any issues or failings reported as result of an Electricity North West internal inspection will be immediately corrected on site and, if required, a revised permit will be issued for the works.

The objective of the Electricity North West Street Works Compliance team is to ensure high standards of street works operations to deliver benefits to consumers, to develop and spread best practice and drive a street works compliance culture in our organisation and with our contractors. This team also acts as a direct interface with a number of stakeholders, including key local highway authority representatives, and ensures, by their auditing and inspection programme and site support, that our street works are safe, cause minimal customer and highway impact and are delivered to a high standard.

Electricity North West reports on the number and type of FPNs received as a way of assessing the compliance to agreed permit conditions. We have set out in chapter 7 our FPN performance as well as performance against a number of other compliance measures.

3.6.3 Permit condition costs

Permit condition costs are defined in CRC 3F as *“Costs arising from the introduction of permit conditions or equivalent and lane rental schemes or equivalent”*. They are further defined in Annex A to the Regulatory Instructions and Guidance as *“the additional costs of undertaking works resulting from permit conditions. Only incremental costs resulting from the conditions should be reported in this category – any costs that would have been incurred in their absence as part of usual operating practices should not be included.”*

As set out above, only the incremental additional costs resulting from permit conditions are included within this application; any costs that would have been incurred as part of usual operating practices under street works notices are not included.

In order to calculate the costs incurred by the business as a result of the application of permit conditions we initially reviewed all the National Permit Conditions as stated in the “Statutory Guidance for Highway Authority Permit Schemes – Permit Scheme Conditions document” to identify those that require tasks that are that are not required under NRSWA street works noticing schemes. As a consequence of this review a number of the National Permit Conditions have been excluded from any consideration of additional costs. The excluded conditions are those that would have been applicable under NRSWA street works notices and also those that do not involve an extra task or requirement that is significant enough to warrant any application for additional costs.



In summary we have identified four permit conditions that require significant additional work above that required for Notices, and a further requirement in respect of Traffic Management Plans. These conditions are set out below:

- NCT04a – Removal of surplus materials/plant
- NCT08b – Manual control of Traffic Management
- NCT09c – Signal removal from operation when no longer required
- NCT11a – Display of permit number
- Requirement to submit a Traffic Management Plan to support a permit application for certain types of work

The following paragraphs explain the requirements of these conditions and the effects on costs for consumers.

3.6.3.1 NCT 4a – Removal of surplus materials/plant

This permit condition requires the utility company to clear excavated materials from site daily by a specified time, often before the end of the same working day. Clearance of excavated materials and other items such as plant and equipment will minimise the overall working area. This has a positive customer impact and can also reduce the level of disruption caused by our street works and, on occasions, will reduce the amount of traffic management associated with the works.

The table below sets out the change in working practices as a result of this condition being added to a permit:

Normal working	When condition imposed
Grab wagon visits site at most convenient time during the duration of the works. The wagon generally only visits each site once per works, generally on one of the last days of the duration when all excavation and asset repair is completed. This allows the wagon to collect all of the excavated materials and also to carry out backfill of the excavation as part of the same visit.	The wagon will visit on a number of consecutive days and on each day it will collect whatever material has been excavated on that day. It will also ensure any other items (such as plant and equipment) are removed from site as per the condition requirements.

3.6.3.2 NCT 8b – Manual control of Traffic Management

This permit condition requires the utility company to ensure that temporary traffic signals are manually operated on the days and times specified by the highway authority. Manually operating temporary traffic signals will ensure that the safety of pedestrians and motorists is fully managed and that any journey time delays caused by our works are minimised.

The table below sets out the change in working practices as a result of this condition being added to a permit:

Normal working	When condition imposed
Temporary traffic signals are used to control traffic around the works and operate by means of vehicle actuation (i.e. automatically activated by moving or standing traffic and against pre set red/green time periods)	An additional competent operative remains on site for the full duration of the traffic sensitive period. This is the time within each working day that traffic volumes are highest and is determined in advance by the Highway Authority on a street by street basis. The traffic sensitivity is stated on the street records that the highway authority maintains and typically this will be any or all of the hours between 8am and 5pm. The operative will monitor traffic flows and standing traffic and will manually amend the red/green timings to maintain satisfactory traffic flow.

3.6.3.3 NCT 9c – Signal removal from operation when no longer required

This permit condition requires temporary traffic signals to be physically removed from the highway within a maximum period of four hours following completion of the associated street works. Compliance with this condition increases operating costs by having to allocate a specific resource (competent operative and support vehicle) to site to clear and collect the temporary traffic signals and associated signage. Clearance of temporary traffic signals and the associated traffic management will ensure that the highway is clear of any obstruction at the earliest possible opportunity.

The table below sets out the change in working practices as a result of this condition being added to a permit:

Normal working	When condition imposed
The temporary traffic signals are collected after completion of all reinstatement works as part of the site visit to clear all signing and guarding items but only immediately prior to the end of the agreed permit duration.	The temporary traffic signals and associated signage are removed from site at the earliest possible opportunity. It would usually be that our works continue on site in the footway or within a reduced area of the carriageway but without the further need for the use of temporary traffic signals. Compliance with this condition necessitates a specific resource being deployed to site to collect the temporary signals and all associated signage and to then return these items to stores.

3.6.3.4 NCT 11a – Display of permit number

This is a standard condition applicable to all permits and requires every ongoing site to display a current and correct permit reference number to comply with the permit regulations and avoid a Fixed Penalty Notice. Displaying the current permit reference number greatly assists the highway authority site inspection process as they can clearly determine who is undertaking the works and which permit applies to the works.

The table below sets out the change in working practices as a result of this condition being added to a permit:

Normal working	When condition imposed
Under street works notices (NRSWA) there is no requirement to record a permit reference number on site.	The site information board has to clearly display the current and correct permit reference number at all times. The team leader on site has to ensure that this number is written onto the site information board and checked on a daily basis. If the permit is varied as this will then result in a new permit reference number being generated and the information board must be updated. This additional requirement applies to all permits and failure to comply will result in a Fixed Penalty Notice being issued.

3.6.3.5 Traffic Management Plans

The provision of a traffic management plan is an additional requirement to support a permit. To date we have generally provided traffic management plans after a direct and specific request from the relevant highway authority. This has sometimes caused delays in granting the permit and has inevitably increased the administrative burden for all parties.



It is expected that this will have a significant impact on our costs and so we have built this into our forecasted costs for 2019/20 to 2022/23.

3.6.4 Methodology for calculating the costs arising from the introduction of permit conditions (2015/16 to 2018/19)

In order to calculate the additional costs incurred in respect of the permit conditions set out in Section 3.6.3 [REDACTED]

We have set out in [REDACTED]

3.6.5 Methodology for forecasting permit condition costs (2019/20 to 2022/23)

The methodology for forecasting permit condition compliance costs is consistent with that used for permit fees and permit administration costs. Permit condition costs have been split between capital works, faults work and maintenance work based on the split of permit volumes between these areas. We have then used the expected workloads for these areas to forecast our expected permit condition costs in each area.

We have used the average cost of conditions per permit from the first four years of the price control in order to forecast future costs. We believe this is the most accurate method of forecasting as we expect the splits between the various types of permit condition averaged over the first four years to be representative of future splits.

The average cost per permit has been increased [REDACTED]

The exception to this method relates to the forecasted costs of traffic management (TM) plans. For this element we have assessed the proportion of works during the first four years of RIIO-ED1 that would have required a traffic management plan under the new requirements, and applied this proportion to the forecasted volumes of permits for the remainder of RIIO-ED1. [REDACTED]

[REDACTED] We have not included any traffic management plan production costs incurred to date as these have not been material thus far.

3.6.6 Permit condition compliance costs – materiality

Table 5 sets out the costs arising from the introduction of permit conditions for each year, and the average cost of conditions per permit.

Table 5: Costs arising from the introduction of permit conditions (nominal prices)

Year	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	Total
Permit condition costs									
Average cost per permit	£								-
TM plan costs	-	-	-	-	£				
Average cost per TM plan	-	-	-	-					-
Total condition costs	-	-	-	-	-	-	-	-	£6,676,938

3.7 One-off set-up costs

CRC 3F includes the facility for DNOs to recover one-off set-up costs in respect of permit and lane rental schemes.

Prior to the introduction of permit schemes Electricity North West used version 3 of the Electronic Transfer of Notices (EToN) system. When the St Helen's permit scheme became operational in 2012 the system was upgraded to support EToN 5 which allowed for permits to be sent and responses to be received. When EToN 6 was released in April 2013 the system was further upgraded. As these costs were all incurred during DPCR5 we have not sought to include them in our submission.

As set out in paragraph 10.4 we anticipate that the introduction of the new Street Manager IT system expected in 2020 will impose further IT systems costs but at this stage we are not able to predict the timing or value of these and have therefore excluded them from our submission.

3.8 Summary

Electricity North West is proposing an increase in allowances of £10.33m (2012/13 prices) in respect of Specified Street Works Costs, as set out in Table 6 below.

Table 6: Summary of Electricity North West's application

Financial year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Totals
Permit fees									2.99
Administration									1.69
Condition costs									5.65
Totals	1.09	1.16	1.45	1.35	1.27	1.37	1.34	1.30	10.33



4. Benchmarking

4 Benchmarking

As part of our preparation for this submission we have undertaken a benchmarking exercise

4.1 Data

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.2 Summary of analysis

[REDACTED]

[REDACTED]

[REDACTED]

4.3 Permit fee costs

[REDACTED]

[REDACTED]

4.3.2 Results of analysis

Electricity North West shows a strong comparative performance

[REDACTED]

[REDACTED]

[REDACTED]

4.4 Permit administration costs

[REDACTED]

[REDACTED]

4.4.2 Results of Analysis

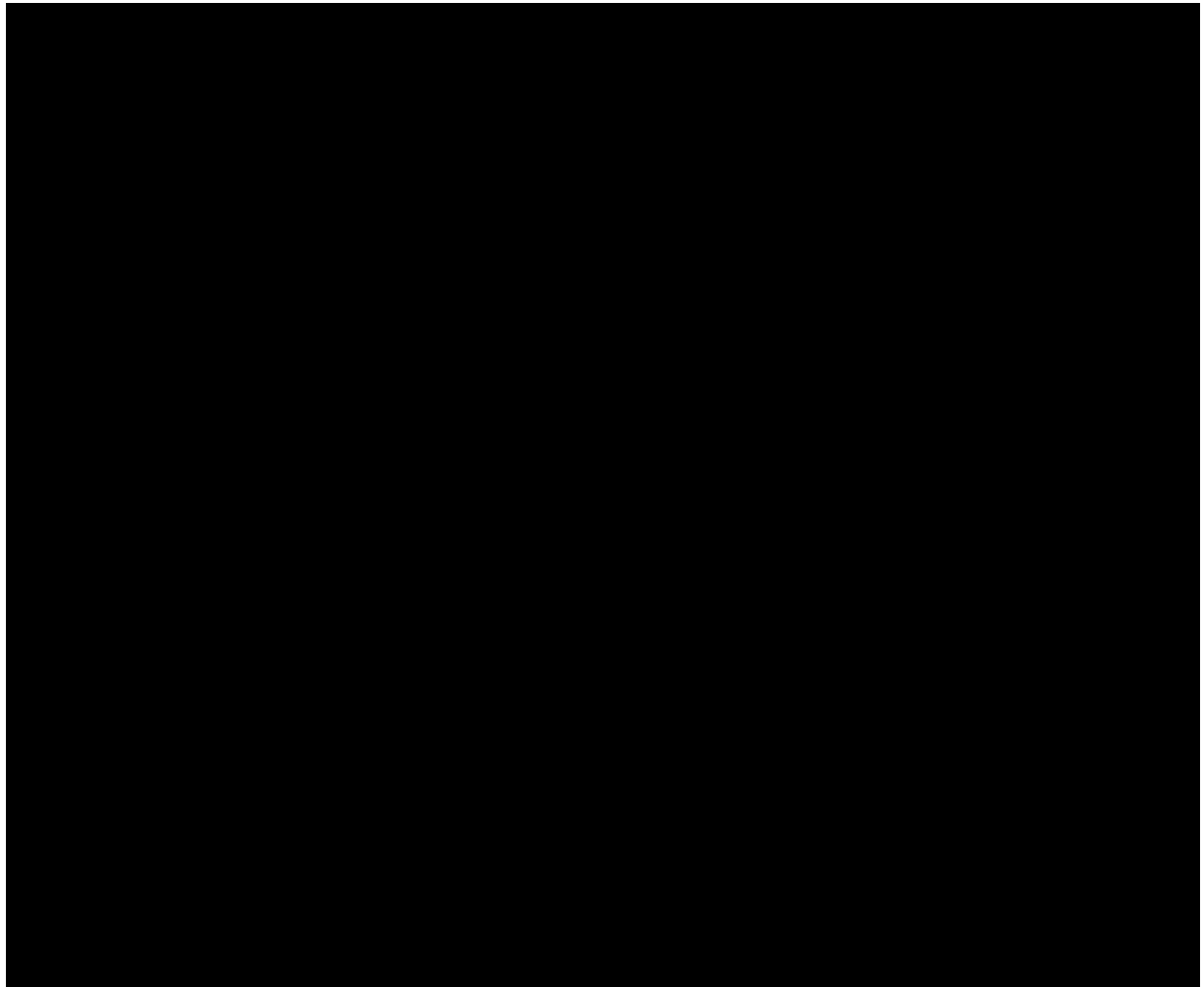
[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]



4.5 Permit condition costs

We believe that permit condition costs are less comparable [REDACTED] due to differing local factors such as highway authority behaviours in the application of conditions. Our experience is that certain conditions cause us to incur greater costs than [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

4.5.1 [REDACTED]

[REDACTED]

4.6 Overall benchmarking conclusion

[REDACTED] this analysis should only be taken as a guide. However this is a useful way of gaining some sense of the [REDACTED] costs [REDACTED]

In conclusion, where comparisons can be made (permit fee costs and permit administration costs), [REDACTED] [REDACTED]

Where comparisons cannot be readily made (permit condition costs), we would advise against the benchmarking of these costs [REDACTED]



5. Customer bill impact

5 Customer bill impact

The table below shows the anticipated impact of the 2019 street works reopener on both domestic and non-domestic North West customers for RIIO-ED1 & ED2, assuming a five year price control for ED2.

Accounting for the fast/slow money apportionments and expected timing of revenue adjustments through Ofgem's annual iteration process, we expect the additional allowances to increase domestic and non-domestic customer bills by an annual weighted average of 38p (2018/19 prices) per customer per year in the last three years of ED1.

As costs are depreciated through the RAV, average annual customer bills are expected to increase by less than 10p (2018/19 prices) throughout ED2.

Post ED2, there will be a small reducing impact to bills as costs are depreciated over the 45 year asset lives.

	ED1			ED2				
	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28
Impact on Base Revenue								
£m 2012/13 prices	2.8	0.6	0.6	0.2	0.2	0.3	0.3	0.3
£m 2018/19 prices	3.3	0.7	0.7	0.3	0.2	0.4	0.3	0.3

Estimated Annual Bill Impact (£ 2012/13)								
Domestic	0.58	0.12	0.12	0.05	0.04	0.06	0.06	0.06
Non Domestic	2.26	0.46	0.46	0.19	0.17	0.24	0.24	0.23
Weighted Average	0.71	0.14	0.14	0.06	0.05	0.08	0.07	0.07

Estimated Annual Bill Impact (£ 2018/19)								
Domestic	0.68	0.14	0.14	0.06	0.05	0.07	0.07	0.07
Non Domestic	2.62	0.54	0.53	0.22	0.20	0.28	0.27	0.27
Weighted Average	0.82	0.17	0.16	0.07	0.06	0.09	0.09	0.08

18/19 RPI: 1.158

	MPANs	% revenue
Domestic	2,244,364	46.07%
Non Domestic	178,539	53.93%



6. Data assurance

6 Data assurance

Regulatory reporting for street works costs is included as part of our annual costs and volumes reporting pack. Data is largely collated from our Symology Insight and SAP® IT systems and subject to second person and senior manager review before submission. We use Symology Insight to produce reports relating to permit types and volumes, and SAP® for all financial reporting.

We have a robust process with a documented methodology for ensuring the accuracy and validity of our data and that costs incurred are eligible and efficient. We have set out below the key areas that these processes cover.

6.1 Data systems

Electricity North West and its contractors use the Symology Insight IT system to manage the processing of all street works permit and notices. All of the volumes data for our annual regulatory submission (Costs and Volumes tables M9a, M9b, and M9c within Table C1), is extracted from Symology Insight.

Electricity North West has developed with Symology a suite of bespoke reports to extract data on permit and notice volumes, permit condition volumes and permit durations, permit modification and variation data, permit and noticing penalties.

6.2 Data assurance

All street works costs are calculated in line with the Regulatory Instructions and Guidance and subject to data assurance in line with Ofgem's Data Assurance Guidance (DAG). In order to ensure awareness of the DAG, Electricity North West has developed an e-learning package which is available electronically to individuals so they can undertake the training using their desktop or laptop. The package consists of three modules: (1) Introduction to Data Assurance (2) Data Assurance for Submission Compilers and (3) Data Assurance for Reviewers and those Signing Off. Individuals who have key DAG-related accountabilities are required to complete this training every two years to ensure that their knowledge remains up to date.

We have applied the assurance requirements as set out in Table 3.1 of Ofgem's Data Assurance Guidance (DAG) for all data included in this submission, and have also complied with the risk-based methodology detailed in the DAG.

Our internal sign-off processes fulfil the requirements set out in the DAG. Our minimum requirement is for a second person review of all submissions. However, due to the criticality of our street works submission it has also been subject to an internal expert review as well as senior manager and director sign-off.

We have not produced an Irregular Submission Assurance report as we included details of this submission in the "Future Submissions" section of our 2019 NetDAR. This is in line with Chapter 5 of Ofgem's Data Assurance Guidance.

6.3 Internal advisory review

In addition to our “business as usual” data assurance processes the Electricity North West Risk Compliance and Assurance team has undertaken an advisory review of a sample of the data included in our reopener submission. This resulted in some recommendations for improved formatting and notes for guidance which have been incorporated into our submission.

The report is included at Appendix 9.

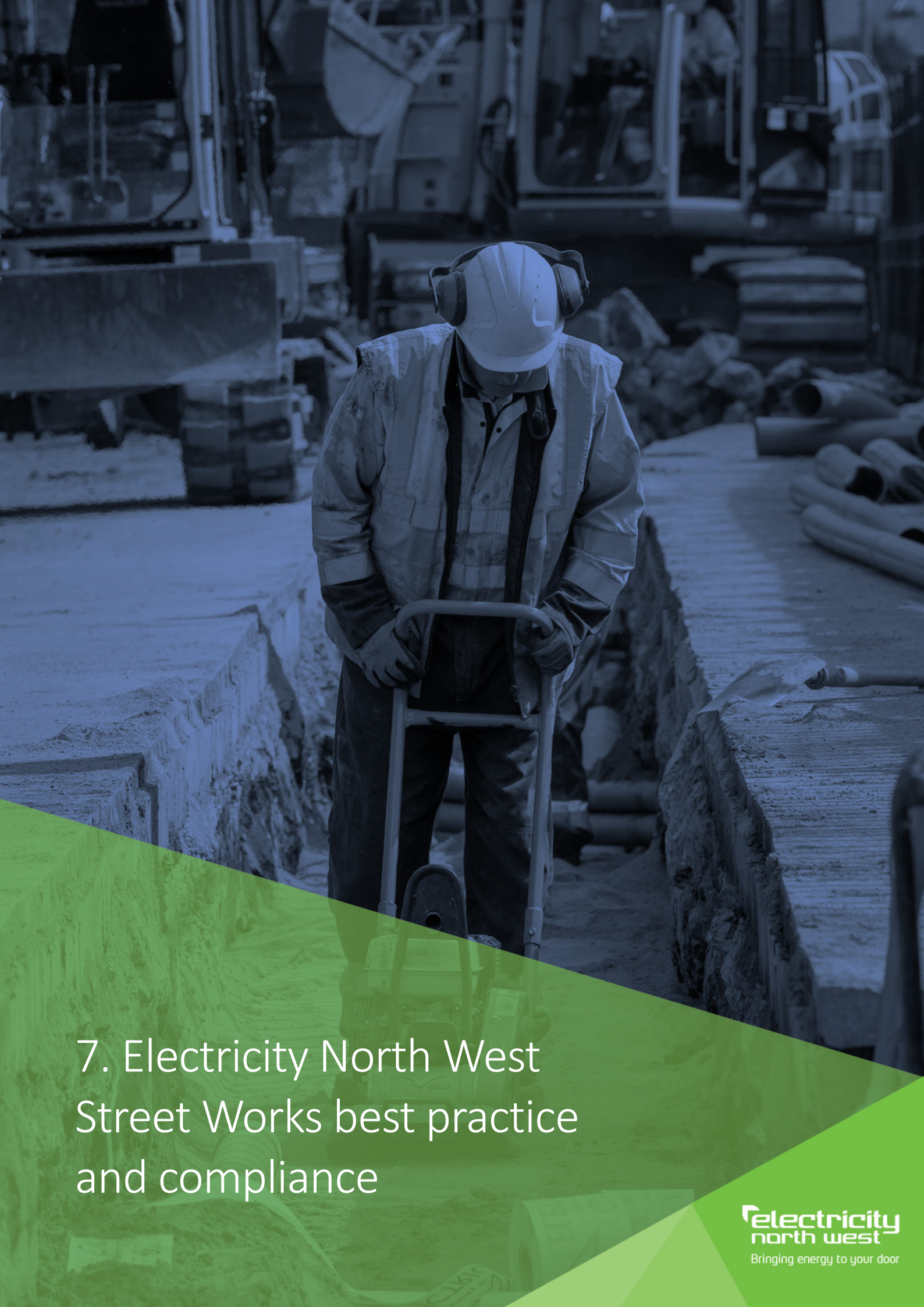
6.4 Independent review

As part of our preparation for this submission Electricity North West engaged Arcadis UK to undertake an independent review of our methodologies for calculating both costs incurred to date and forecasted costs. This review was effective as some changes were made to our draft submission due to the insights that Arcadis provided. These changes are reflected in our final submission.

Arcadis has concluded that the methodologies to calculate permit administration costs incurred by Electricity North West and its contractors are reasonable in terms of both the incremental time calculated for the administrative activities undertaken and the hourly rates applied. Similarly, Arcadis has reported that the methodologies to calculate the costs associated with the permit conditions are regarded as reasonable for both Electricity North West and contractor works. Arcadis regards Electricity North West permit duration and time assumptions for condition compliance as realistic.

Overall, Arcadis regards the approach developed and implemented by Electricity North West to determine the value of the various RIIO-ED1 Specified Street Works Costs as reasonable and realistic.

Arcadis’ report is included at Appendix 10.



7. Electricity North West Street Works best practice and compliance

7 Electricity North West Street Works best practice and compliance

Electricity North West delivers its street works with minimal impact to our customers and highway users and in the most efficient and cost effective manner. Key measures of this are the results of highway authority inspections and the volumes of penalties issued. Electricity North West's performance in these areas is strong and reflective of the efforts we have undertaken to ensure that our street works impose minimum disruption to our customers and are executed safely.

The following is a summary of the key areas of our street works compliance performance and the working practices we have implemented to ensure our works are delivered safely and efficiently.

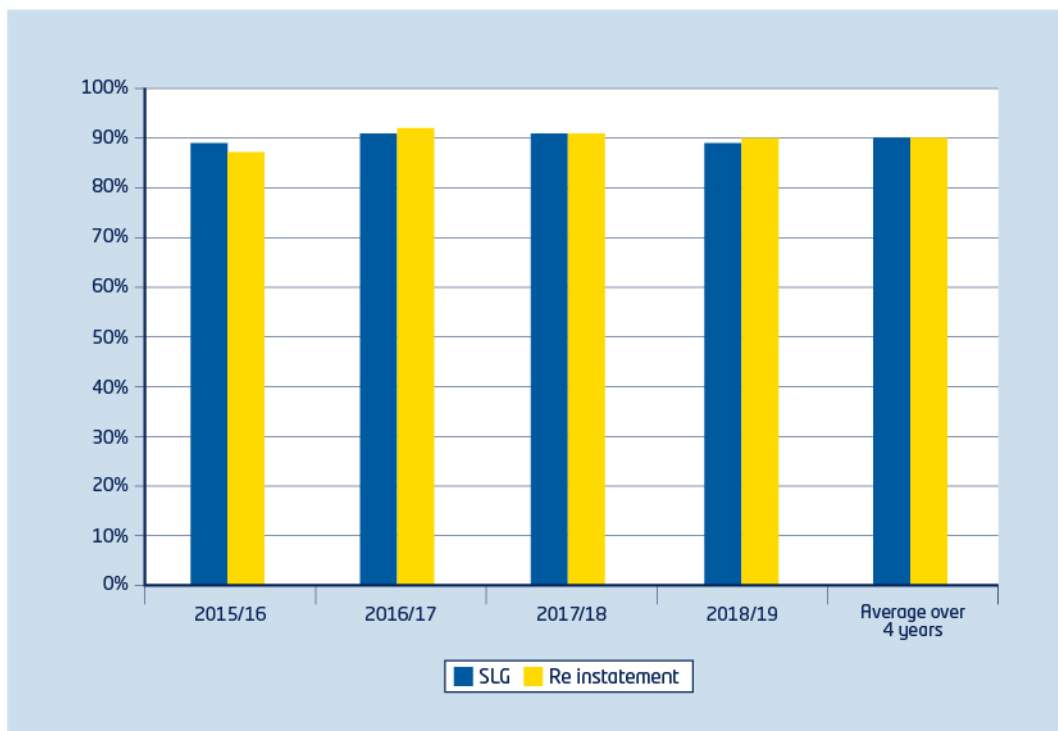
7.1 Highway authority sample inspections

In line with street works legislation each highway authority will inspect a random sample of 30% of Electricity North West's street works each year.

In a typical year the North West highway authorities will undertake between 3,000 and 4,000 inspections across a range of Electricity North West's street works activities. These inspections check signing, lighting and guarding (SLG) safety and compliance, and the quality of backfill and reinstatement.

Electricity North West has averaged a 90% pass rate for highway authority inspections across the first four years of the regulatory period.

Figure 1: Annual summary of Electricity North West pass rate against highway authority inspections undertaken



7.2 Electricity North West's internal inspections for reinstatement and SLG compliance

In addition to the formal highway authority inspections Electricity North West carries out a number of internal audits and inspections each month. These are undertaken by the Street Works Compliance Team as well as the managers directly responsible for the works. Our inspections include the same key questions and areas of focus as those carried out by a highways inspector. The internal required measure is a 90% pass rate for all completed inspections. For 2018/19 our internal inspections recorded a pass rate of 90.2% for SLG, and 90.1% for reinstatement.

7.3 Modifications or variations to permits

There is an additional administrative cost and sometimes a further financial cost (in terms of additional permit fees) for every permit modification or variation. Electricity North West reports internally on the percentage of Permit Modification Requests (PMRs), Authority Imposed Variations (AIVs) and permit variations requested by ourselves. A PMR, AIV or utility requested variation is, in the majority of cases, due to an unforeseeable or changed circumstance.

It is important that numbers of such permit modifications and variations are minimised where possible.

7.3.1 Permit Modification Requests (PMRs)

PMRs can be initiated by either the highway authority or the utility carrying out the work. Upon receipt of a permit application the highway authority will undertake a detailed process of validation (typically around 30 separate data checks are carried out) before deciding the next course of action. If, following this review, the authority considers that changes are needed then a PMR is issued. The PMR will require the utility responsible for the works (or its contractor) to review, modify and resubmit the permit application within a set timescale and in a prescribed format.

In certain circumstances it may be necessary for Electricity North West to issue a Permit Modification Request (PMR) to vary a previously granted permit. Examples of such circumstances include:

- Works started earlier than initially planned in order to meet a customer's requirements;
- Works started earlier than initially planned to ensure they are completed ahead of highway authority works or other planned utility works;
- Works started earlier than initially planned to facilitate collaborative working;
- Extended works duration required after further discussion and agreement with the highway authority;
- Extended works duration required for the completion of specialist reinstatement (for example in town centre regenerated areas or maintained heritage areas). This can occur in fault works where we will not have been able to undertake a pre-site visit due to the immediate nature of the works;
- Unforeseen engineering issues for example requests to other utilities to move their apparatus. Again, this is more likely to occur for fault works where we will not have been able to undertake a pre-site visit due to the immediate nature of the works;
- Variations associated with changes to traffic management as works progress and the working area changes.

Electricity North West has a self-imposed target of a maximum of 25% of permit variations (excluding Authority Imposed Variations (see paragraph 7.3.2 below). This would mean that no more than one in four of our permits should be varied by us or our contractors. The main reasons for requested variations are for revised start dates or revised works durations, for the reasons set out above.

Over the regulatory period to date the Electricity North West PMR received rate has averaged 16% of permits served.

As part of Electricity North West's drive for efficiency the street works compliance team investigates a number of requested and agreed variations each month in order to identify areas for improvement.

7.3.2 Authority Imposed Variations (AIVs)

If a highway authority needs to make a change to a granted permit it can do so by sending the utility an AIV. There is no charge for this form of variation but the AIV will still require the utility responsible for the works (or its contractor) to review, modify and resubmit the permit application within a set timescale and in a prescribed format.

Electricity North West has noted an increase in AIVs over the first four years of RIIO-ED1, averaging just over 2% of permits served. Although they do not cause us to incur any additional permit fees there is an associated increase in administration time costs.

7.4 Street Works penalty charges

There are two separate penalty charges that can be issued by a highway authority as a result of a failure to comply with the requirements of a permit. These penalty charges are Fixed Penalty Notices (FPNs) and NRSWA Section 74 charges.

It is possible for both charges to be issued against a single permit. For example, if there is a failure to comply with a permit condition this would result in an FPN and if the works occupy the highway for longer than the duration stated on the permit this would result in an additional S74 charge.

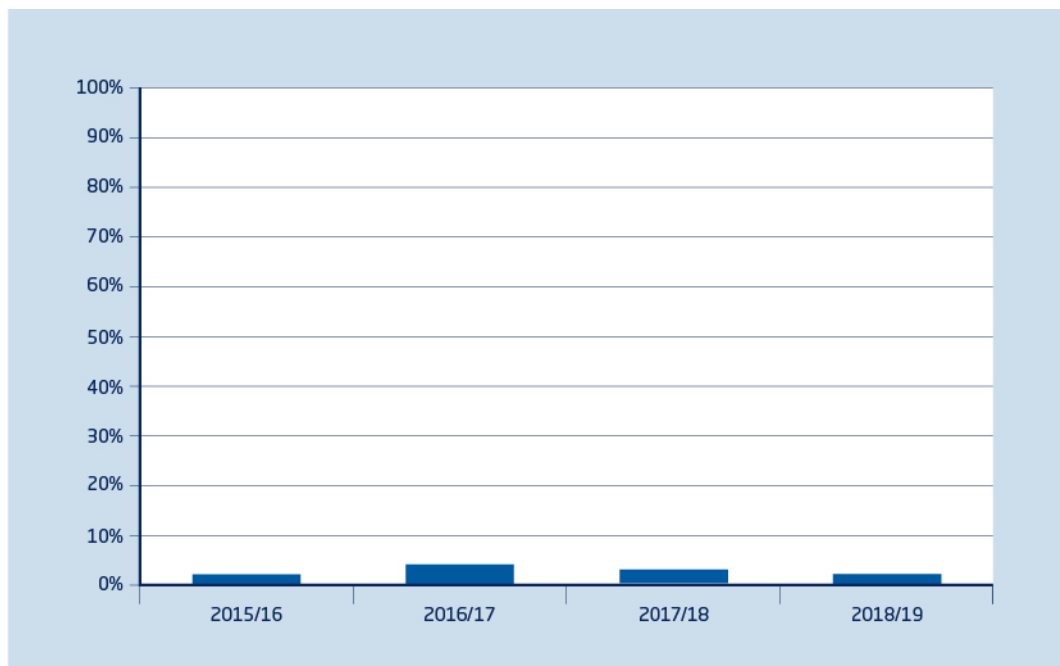
Although we report street works penalty charges in Table M9c of the Costs and Volumes reporting submission we are not including any such costs in this submission.

7.4.1 Fixed Penalty Notices (FPNs)

A fixed penalty notice is issued by the highway authority for a failure to comply with an aspect of a permit or a permit condition. A fixed penalty notice will result in a penalty charge and additional administrative costs for validating the FPN and processing the payment of the charge.

Electricity North West's performance over the first four years of RIIO-ED1 is summarised below.

Figure 2: FPNs paid as a percentage of permits served



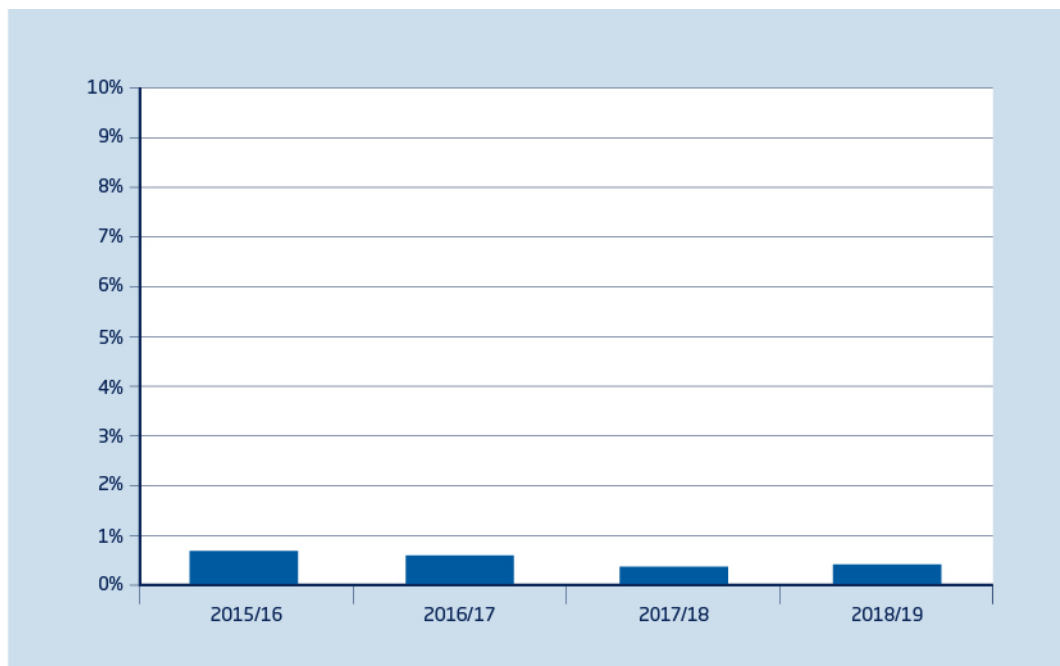
The reduction in the percentage of fixed penalty notices received over the past three years has been achieved primarily due to our street works compliance team providing continued support to the operational areas of the business and our contractors to ensure that all who are involved in the creation, issue and management of permits fully understand the requirements of each individual permit scheme. There has been specific and focused training provided in advance of the “go live” of each scheme and this has been followed up by a programme of site inspections to internally measure permit compliance and to identify areas of FPN risk.

7.4.2 NRSWA Section 74 Charges

NRSWA Section 74 charges are issued by highway authorities for any works that occupy the highway beyond a reasonable and agreed duration. A Section 74 offence will result in a daily charge and additional administrative costs for validating and processing the payment of the charge.

Internal performance reporting (as summarised below) shows improving performance with only 0.3% of permits receiving a Section 74 penalty during 2018/19. This compares with the industry average of 2% as reported in the 2018 Street Works UK annual performance report, a report which is distributed widely across the utility and contractor sectors.

Figure 3: S74 penalties received as a percentage of permits and notices served



The year on year reduction in the percentage of NRSWA Section 74 charges has been achieved due to a combination of our street works compliance team providing continued support to the operational areas of the business and our to contractors and also by those who issue permits ensuring that the works duration requested on the permit is accurate in terms of the time required to complete the works.

7.5 Street Works best practices

Electricity North West has implemented a number of street works best practice initiatives. These have focused on improving safety, improving quality and compliance, working more efficiently and minimising the impact and any disruption related to our street works. Examples include:

7.5.1 Improved barriers and excavation protection systems

We have worked with our signing and guarding suppliers [REDACTED] to improve the stability of the barriers we use to protect our street works. This has resulted in the development of more stable barrier feet and improved barrier linking systems; both initiatives result in barriers that are more stable, less likely to blow over in adverse weather conditions and are more resilient to third party interference. [REDACTED] have now included these improvements as standard for the items they supply to Electricity North West as well as several other utilities and their contractors.

We have also worked closely with [REDACTED] to develop a specific barrier system [REDACTED] that gives additional protection for deep excavations. This system is currently in use on a high profile project in Lancashire and has received positive feedback from Lancashire County Council.

As a consequence of our street works we will sometimes excavate across a customer's driveway. To minimise customer inconvenience we have also worked with [REDACTED] to develop a bespoke

excavation covering system that allows customers' driveway access to be maintained throughout the duration of our works.

7.5.2 Field user guides to improve backfill and reinstatement quality and compliance

Electricity North West engaged an industry recognised external consultant [REDACTED] to develop a number of simple user guides for field staff designed to improve street works safety, quality and compliance. This has resulted in measured improvements in key areas such as the compaction of bituminous materials. Improved compaction will directly increase reinstatement durability and enhance long term reinstatement performance and thereby significantly reduced the need to undertake costly and disruptive reworks for failed reinstatements.

7.5.3 Materials ordering process

We have worked closely with one of the main North West (and national) reinstatement materials suppliers [REDACTED] to simplify the materials ordering process to ensure that operational teams and their managers understand how to order the correct reinstatement materials for their works and to ensure that they are ready for collection, thus avoiding costly delays. As part of the exercise we facilitated several workshops including attendees from the materials producers, our contractors and several other North West utilities, their contractors, and members of the North West HAUC materials group.

7.5.4 Improved Site Permit Board

Permit regulations require each street works site to display an information board that shows the current and correct permit reference number. Failure to do so will result in a fixed penalty notice being served.

We have worked with our SLG suppliers to develop an enhanced information board that displays all of the mandatory information as well as additional information to inform customers and the general public who is actually managing the works and the date that the works will be completed by. There are also contact details included to allow our customers to rate the site in terms of its general appearance and safety.

The board has an anti-vandal film on it which makes it more difficult for third parties to remove the permit reference number; however there is still a requirement for our operational teams to check the board daily to ensure that the reference number is still readable.

This board type is now used by several other utilities and their contractors.

7.5.5 E-Learning modules

We have developed a series of E-Learning modules for our staff to raise their competence and understanding of what represents safe street works. These modules have been used to supplement the established framework of NRSWA qualifications and accreditations.



8. Street Works innovations and efficiencies

8 Street Works innovations and efficiencies

Given that much of the Electricity North West network is buried underground there is an inevitable need to excavate to access our apparatus. This will entail setting up signing and guarding and undertaking street works, often affecting the public highway and impacting our customers.

Developing and introducing innovative working practices, driving industry best practice and introducing internal efficiencies are all integral to reducing the customer impact and costs of our street works.

Street works innovations and efficiencies are expected to result in a measure of savings in terms of the direct costs for any Electricity North West direct labour activities. These efficiencies in our general business activities will go some way towards mitigating upwards cost pressure risks as a result of increasing street works management activities and increases in contractor rates and direct labour costs.

8.1 Operational efficiencies

A range of internal efficiencies have been identified and implemented that reduce the cost and impact of our operational activities in the highway. These include:

8.1.1 Remodelled contractual requirements to ensure street works are completed in reduced timescales.

Immediate permits are raised by Electricity North West to allow for the repair (or avoidance) of supply faults and interruptions.

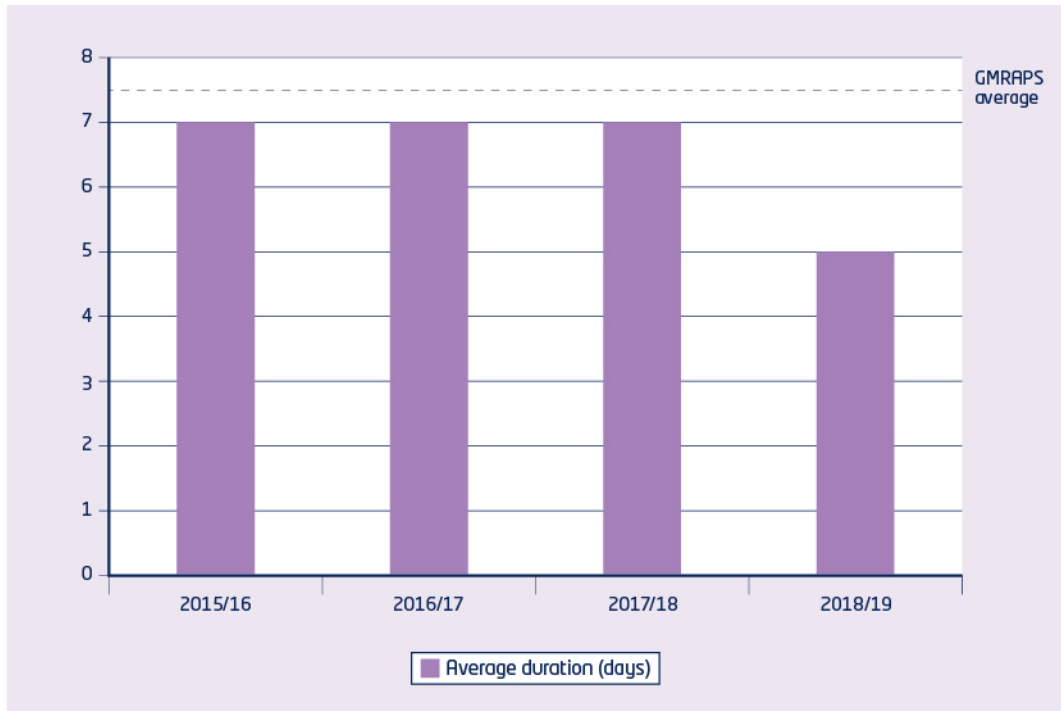
The time taken to complete a typical fault repair on our underground network is comprised of the Electricity North West direct labour elements of fault location, excavation and fault resolution followed by the contractor tasks of backfill, reinstatement and site clearance.

Once our direct labour has completed the fault location and repair tasks the backfill and reinstatement requirements are passed across to our contractor partners. The contractor “works completion” timescale is then measured against incentivised key performance indicators (KPIs). Performance against these KPIs is reported monthly and reviewed as part of the contract management process.

The Electricity North West street works and contract management teams have worked with our contractor partners to restructure the contract requirements to reduce timescales for completion of the backfill, reinstatement and site clearance tasks. Specifically we have introduced a process for identifying backfill and reinstatement works that need prioritising for completion within a maximum of 24 hours after being passed across to the contractor. These would typically be works that have temporary traffic control on site, those works that are causing significant customer impact, or those works that are on or affecting major traffic or pedestrian routes. To ensure that these types of works are completed as promptly as possible our contractors have agreed to complete the backfill, reinstatement and site clearance of 25% of all Electricity North West works within a maximum of 24 hours following the receipt of a works instruction. This efficiency means that these excavations are now open for shorter durations which reduces safety risks and minimises the disruption associated with our street works to our customers and all road users.

Electricity North West has an objective to further reduce the duration of fault repair works; timescales are now lower than the utility sector average for immediate works. The most recently available GMRAPS permit performance report recorded a utility average of 7.5 working days for works completed under an immediate permit. The chart below shows the average duration of ENWL immediate works permits over the first four years of RIIO-ED1.

Figure 4: Immediate permits average durations (working days)



The reduction in average durations seen in 2019 has been achieved and maintained by a variety of measures, including:-

- Reduced contractual works completion timescales (as explained previously)
- Improved processes for transmitting backfill and reinstatement works orders to the contracts (work orders now contain a better level of detail including site photographs where required)
- More efficient utilisation of direct labour resources to improve fault location, excavation and repair timescales – this has been primarily due to local works management and resource dispatch teams being established in all our operational areas.

The measured impact in terms of benefits related to the reduced duration of our works will be realised by the general public who use the highway. This is an established principle and studies commissioned by the DfT have valued every day that works occupy the highway by means of an assessed daily “disruption impact” and “cost to society”.

8.1.2 Investment in additional and improved signing and guarding items to ensure our street works are safe and have lower customer impact.

We have worked closely with signing and guarding suppliers to trial and develop various types of signing and guarding and have invested heavily in items such as driveway boards (to ensure customer access is maintained), low energy road danger lights (to improve the safety and visibility of our works) and revised barrier and sign securing options (to ensure our barriers and signs do not blow over and cannot be tampered with).

These developments have improved the safety and security of our works and for our operatives and have reduced the customer inconvenience associated with our works.

The left hand photograph below shows a typical excavation protected by conventional barriers. The right hand photograph shows a barrier system that we have developed in conjunction with our suppliers to give additional protection to deep excavations. These barriers are double the height of conventional barriers and have a redesigned base with a solid construction which greatly improves barrier stability. This improves safety for the public and for our operatives.

Costs savings will relate to the marginal reduction in any potential for claims associated with unsafe or inadequately protected open excavations.



8.2 Street Works innovations designed to improve quality and/or reduce operational costs

Electricity North West has evaluated and reported internally on the following street works items targeting improved quality and/or reduced costs [REDACTED]

8.2.1 [REDACTED]

This is a mobile “on site” batching machine that produces hot bituminous reinstatement materials. It has the potential to allow us to complete our reinstatement works on a 24 hour basis as the materials are mixed on site on an “as needed” basis.

We have undertaken a trial to test this technology but have not yet rolled it out as it is currently cost prohibitive. There is significant initial capital outlay required for the specialised vehicles and associated plant and additional operator training requirements. Furthermore the bagged reinstatement materials are considerably more expensive than the conventional bulk purchased reinstatement materials that we currently use.

This method is considered to be potentially more applicable to reduce costs for areas operating under lane rental as it supports a more expeditious completion of utility street works. The additional expenses may represent a more cost effective option than the increased lane rental charges resulting from the extended occupation of the highway associated with conventional reinstatement methods. We are continuing to keep the [REDACTED] approach under review in case its costs fall or our operating requirements change.

8.2.2 Enhanced bituminous materials

We have worked closely with major materials suppliers (including [REDACTED]) to develop an improved bituminous material that is easier to compact and has greatly improved long term performance. This benefits both our customers and highway users by eliminating the need for future reworks associated with failing reinstatement. The materials development works done by Electricity North West and the materials suppliers is a significant innovation and this material is now in extensive daily use on all Electricity North West sites and has become very much the regional and national industry norm.

The costs savings to both Electricity North West and its contractors will relate to a significant reduction in the number of reinstatements that may need reworking due to long term performance issues.

8.2.3 Cold lay version of “hot lay” bituminous materials

We have worked on a project with [REDACTED] to develop and install a cold version of a typical hot lay reinstatement material that can be purchased in bulk and is then laid in exactly the same manner as a conventional “hot lay” reinstatement material. The cold lay option has been successfully trialled on a number of Electricity North West sites. This material is cheaper than conventional hot lay materials and can be bulk purchased and stored in our operational depots for 24 hour availability. This reduces costs to our customers and has a positive environmental impact as it does not require any heating process to produce the materials. The costs savings to both Electricity North West and its contractors will relate to a reduction in the amount of costly hot bituminous reinstatement materials that are wasted as they cannot be laid once they have fallen below a specified temperature.

8.2.4 Thermal Reinstatement Repair Technology

This is a method of improving the durability and longevity of a bituminous reinstatement by reheating and then re-compacting the in-situ materials. This reuse of the existing bituminous surfacing materials eliminates the need to bring in new reinstatement materials directly reducing costs while also resulting in a higher quality reinstatement. This method has been used on a significant number of sites and gained a national industry award for quality and sustainability.

Electricity North West was the first utility company in England to use this technology which had only ever been used previously on large scale areas of reinstatement on the motorway and trunk road network. We worked with one particular company [REDACTED] to modify their existing plant and methodology to make this suitable and cost effective for smaller scale utility works and we also engaged with a number of North West Highway Authorities to gain permission for the use of the innovative reinstatement process.

The costs savings to both Electricity North West and its contractors will relate to a reduction in the costs of a bituminous reinstatement (as fewer new materials are used) and longer term we expect a reduction in the number of reinstatements that need reworking due to long term performance issues.

8.2.5 Temporary traffic signals with remotely controlled light heads

We are working with our one of our contracted traffic management suppliers to develop a traffic light head for temporary signals that can be operated remotely to react to changes in traffic flow. If this technology is introduced onto live sites this may reduce the requirement to manually control the timing of temporary traffic signals. Site trials are currently ongoing and initial feedback from several highway authorities is positive. This innovation has the potential to impact our operational costs, reduce customer disruption and improve site safety however the current cost of the technology is higher than manning the lights so we may not take this further at this stage.

8.3 Innovations designed to reduce or eliminate the need to undertake street works whilst still maintaining or improving our assets.

Electricity North West's primary innovation focus has been on maximising the use of our existing assets and it is this focus which will reduce our level of street works due to the expected future uptake of low carbon technologies.

Innovation	Street works reduction
Cable Asset Health (Trial ongoing) This project will generate an index as to the condition of our LV cables. This will allow us to access and programme our LV cable replacement works in an even more targeted manner.	Further improvements to proactive cable replacement will reduce the number of street works for faults offset by more street works for planned work. If this project is successful, the targeting of proactive cable replacement may allow us to combine some cable replacement works which will minimise disruption and should increase our efficiency.
Sapient (BAU) This innovation uses information from telemetered monitoring data which provides data during network disturbances and transient faults allowing fault location before a permanent fault exists.	This technology allows us to locate and repair a short duration or intermittent fault or service interruption before this has the potential to escalate into larger scale supply interruptions. This innovation, allows us to undertake targeted and planned fault location and repair work as a preferred option to emergency fault works.
Smart Street (Planned roll out) This innovation actively optimises the LV network which will facilitate the connection of low carbon technologies (LCTs), such as electric vehicles, without the need to reinforce the network.	At wide scale, using the smart street approach should make capacity available to our customers without the need to undertake as much disruptive network reinforcement (including associated street works) compared to traditional approaches. With smart street the overlaying of LV cable due to LCT clusters will be significantly reduced in future. Note that smart street is the subject of a separate IRM application.



9. Stakeholder engagement

9 Stakeholder engagement

Stakeholder engagement is key to developing strategies to address various street works challenges, improving the safety and quality of Electricity North West's street works and reducing the costs to customers associated with delivering efficient street works. We have established positive and collaborative relationships with local authority and industry bodies in order to improve performance and moving street works forward to the benefit of all our customers and stakeholders. Ultimately we want to keep our customers and the public safe whilst delivering against our outputs and keeping disruption on the highway to a minimum.

We have set out below some of our key stakeholder engagement activities.

9.1 Department for Transport (DfT)

In January 2016 Electricity North West hosted a two day visit by the senior street works policy team from the DfT. The DfT attendees were [REDACTED] the Director of Traffic Policy, and [REDACTED] the DfT's Head of Street Works Regulation and Policy.

[REDACTED] were given an overview of our street works policies and processes and our commitments to our customers and visited a number of sites in and around Manchester city centre to give them a firsthand view of how we operate. Verbal feedback from the DfT following the visits was universally positive.

Electricity North West collaborated with [REDACTED] and [REDACTED] to ensure that this visit was able to view a broad spectrum of works at site level.

9.2 Highway and Utility Committee (HAUC)

HAUC (UK) is undertaking a wide ranging exercise to look at the applicability and suitability of the formal NRSWA accreditation required for operatives and supervisors and the quality and content of the associated training. This exercise is being managed by the HAUC (UK) Training and accreditation working group.

A member of the Electricity North West street works team has been elected to chair the HAUC UK Training and Accreditation working group. This allows us to directly contribute to the future of street works training in the vital areas of safety, quality and compliance.

Electricity North West has also actively participated in the ongoing review of the HAUC UK Statutory Reinstatement Specification (SROH). This review includes selected industry peers and is delivered under the direct responsibility of the DfT. This allows us to directly contribute to the revision of a critical statutory specification relating to backfill and reinstatement quality and compliance.

There are two key North West working groups which meet quarterly under the umbrella of HAUC to ensure street works are planned and delivered efficiently and effectively across the region. Electricity North West actively participates in the NWHauc forum which is made up of senior representatives of all North West highway authorities and all North West utilities. The NWHauc Materials and Innovations Working Group is a formal sub group of NWHauc with similar

membership and Electricity North West has chaired this working group for the past three years. Active participation in both of these regional working groups assists us in delivering our obligations to co-ordinate our street works, to deliver innovative solutions and to be aware of and share best practices.

9.3 Energy Networks Association (ENA)

Electricity North West's street works manager also actively participates in the DNO street works forum which meets quarterly under the remit of the ENA. These meetings provide an opportunity to benchmark performance and to review and share best practices.

Specific areas of interest to the ENA street works forum include:-

- Sharing innovation and best practice
- Developing a street works risk register, understanding the impact of key industry initiatives particularly those which could potentially lead to a significant increase in street works activities or costs
- Ensuring benefits for our customers by working together to ensure a consistent approach to new legislation and to the consultations for proposed amendments to the various NRSWA codes of practices

9.4 Highway Authority engagement

Members of the Electricity North West street works team, along with selected operational and contractor managers, meet on a quarterly basis with each of the North West highway authorities to review street works performance. The meetings have a set agenda and are supported by jointly agreed performance reports. Each highway authority is asked to score us on areas such as quality and safety and permit scheme compliance. Our average score for the latest 12 month period is 8.5 with no major or recurring issues being reported.

The figure below is extracted from the report produced by our street works team to track the areas of performance discussed at the quarterly highway authority engagement meetings.

Any areas of concern identified at the meetings are then included in internal discussions and meetings with key operational and contractor staff.

Highway Authority	Meeting Date	HA Reps	ENW Reps	Sample Inspection Performance	Defects	Notice/ Permit Performance	FPN's	Traffic Management Issues	Ops issues	Contractor issues	Overall risk rating	Comments
	13/06/2018											Some FPN's are outstanding but have been challenged by ENW. Traffic Management plans needed for any works that cause significant disruption.
	16/04/2019											TM plans are not always submitted when required.

Key			
Not covered at meeting	Covered but no issues raised	Covered and some issues raised	Covered and significant issues raised

9.5 Stakeholder engagement tracker

Electricity North West has an internal Stakeholder Tracker managed by its communications team. Colleagues from all business areas complete the tracker every month following any engagement with our key stakeholders such as highway authorities. We use this tracker to understand what engagement we have and with who; it also determines if there are any actions or outcomes from these stakeholder interactions.

In addition to this providing some of the key data for our Stakeholder Engagement Customer Vulnerability (SECV) submission this tracker is also shared on a monthly basis with the Electricity North West Executive Leadership Team. It is critical that we engage with the various stakeholders and customers across our region to ensure we are meeting their needs and meeting the demand for electricity and a low carbon future. Tracking our engagement allows different business areas visibility of what their colleagues are doing and provides the opportunity to identify if different areas can partner together to have a greater impact.

All relevant and appropriate street works engagement meetings are recorded onto the Stakeholder Tracker which shows 177 different street works engagement records for the period April 2018 to April 2019, a sample of which are shown below:

Name of Event	Date of Event	Internal / External Event	Stakeholder Engagement Theme	Stakeholder Group	Stakeholder Organisation name	Type of Event	Number of Internal Attendees	Number of External Attendees
Highway Authority	18/06/2018	Internal	Affordability	Local Authority: #30	enw	Planning meeting	2	0
Highway Authority	19/06/2018	Internal	Affordability	Energy Supplier: #21	Energy Solutions	Planning meeting	2	0
Highway Authority	19/06/2018	Internal	Affordability	Local Authority: #30	ENW	Co-ord Meeting	1	5
Highway Authority	20/06/2018	Internal	Affordability	Local Authority: #30	Event	Event CEO	300	0
Highway Authority	20/06/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Meetings with selected stakeholder's	2	0
Highway Authority	21/06/2018	Internal	Affordability	Local Authority: #30	Co-ord meeting	Meetings with selected stakeholder's	1	9
Highway Authority	21/06/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Meetings with selected stakeholder's	2	0
Highway Authority	22/06/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Meetings with selected stakeholder's	2	0
Highways engagement	27/06/2018	Internal	Sustainability	Government/Civil Serv	Manchester highways	Meeting	4	1
Highway Authority	09/07/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Planning meeting	2	0
Highway Authority	10/07/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Planning meeting	2	0
Highway Authority	11/07/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Meetings with selected stakeholder's	2	0
Highway Authority	12/07/2018	Internal	Affordability	Local Authority: #30	Engagement meeting	Meetings with selected stakeholder's	3	2
Highway Authority	13/07/2018	Internal	Affordability	Aggregator: #16	Site visit	Site visit	1	1
Highway Authority	19/07/2018	Internal	Affordability	Local Authority: #30	Co-ord Meeting	Meetings with selected stakeholder's	1	12
Highway Authority	20/07/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Meetings with selected stakeholder's	2	0
Highway Authority	23/07/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Forum	3	0
Highway Authority	24/07/2018	Internal	Affordability	Local Authority: #30	Engagement meeting	Forum	3	2
Highway Authority	25/07/2018	Internal	Affordability	Local Authority: #30	Engagement meeting	Engagement meeting	3	2
Highway Authority	26/07/2018	Internal	Affordability	Local Authority: #30	Planning meeting	Meetings with selected stakeholder's	2	1
Highway Authority	26/07/2018	External	Affordability	Local Authority: #30	Site visit	Site visit	1	0

9.6 Stakeholder engagement - case study

We have made significant progress developing the delivery of our street works on the highways managed by Highways England (i.e. primarily motorways and trunk roads). This is particularly important as street works affecting these types of locations can have the potential for considerable customer impact. Electricity North West has worked closely with Highways England and its management agents to produce a process that ensures all works are robustly planned and delivered to manage our impact. This has led to enhanced working relationships and allowed us to complete a number of schemes on time and as planned without significantly affecting traffic flows.

We have worked collaboratively with our highway authority colleagues to manage the impact of a number of high profile buried cable replacement schemes recently.

The attached document (Appendix 12) outlines the stakeholder engagement and collaboration associated with the Rawtenstall Power Upgrade taking place in the Bacup area of Lancashire.

The Rawtenstall project is also similar in scale to major works that were successfully delivered in the Stalybridge area of Greater Manchester in the summer of 2018. These works involved extensive traffic management and required close liaison with a variety of key stakeholders, most notably senior representatives of Tameside Council (as the relevant Highway Authority), and also included regular updates and communications with [REDACTED], the Member of Parliament for Stalybridge and Hyde, who holds the office as the Shadow Economic Secretary to the Treasury (Shadow City Minister).



10. Future challenges

10 Future challenges

Electricity North West is aware of a number of potential changes to street works legislation that may be enacted before the end of the current RIIO-ED1 period. We are working with our stakeholders to ensure that costs to our customers are managed and that our output commitments are efficiently and effectively delivered.

The impact of these future challenges has not been included within this submission although costs could be incurred prior to the end of the RIIO-ED1 period and will almost certainly be incurred moving into RIIO-ED2.

10.1 Section 74A NRSWA – Lane Rental

The recent announcement by the DfT (as set out in paragraph 2.3) to roll out lane rental throughout England will have a high financial impact on the cost of working in the street. UKPN has already reported unavoidable additional operating costs within the two existing lane rental areas. As part of the DfT consultation during September and October 2017 on the wider roll out of lane rental five unnamed North West Highway Authorities indicated their intentions to introduce lane rental schemes in the near future⁷. We have estimated (based on the information available) that a full roll out in line with the approach used in the Transport for London scheme that could see several million pounds of costs per annum for Electricity North West customers though there may be wider benefits as a result of potentially lower levels of street works disruption.

We are in close contact with all North West highway authorities so that we can work collaboratively to reduce the impact of lane rental costs on our customers whilst assisting the Highway Authority and the DfT to meet their key priorities in reducing disruption and congestion to the travelling public.

As set out in paragraph 2.3.2 we propose that, if and when any efficiently incurred costs arise as a result of lane rental, a logging up mechanism of any additional costs incurred in RIIO-ED1 should be put in place. Subject to Ofgem's feedback, potentially following consultation with all stakeholders, we will collate and record all incremental street works costs for lane rental. We propose these be considered as an uncertain cost funding request similar to the process for the current street works uncertain costs submission here. We will log these up by 31 March 2023 and submit these for Ofgem consideration in Year 1 of RIIO-ED2. This approach delivers on Ofgem's intent that costs for DNOs to deliver against legislation to establish lane rental are only funded when these are relatively certain whilst protecting customers from funding lane rental costs that may subsequently not be incurred.

10.2 Section 73 NRSWA – Contributions towards maintaining the highway

The issue of 'pot holes' and general highway condition is ever more an area of public focus and concern, as is the reported lack of funding to local authorities to maintain their roads.

Electricity North West, in alignment with Street Works UK, firmly believes that pot holes are rarely, if ever, caused by utility works and that existing legislation ensures that any works undertaken in the

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https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/681077/consultation-response-lane-rental.pdf

highway are guaranteed for an appropriate period. However, there is a level of political lobbying at present to enact Section 73 of NRSWA. If successful this would mean that utilities would be required to pay a 'contribution' to maintaining any completed reinstatement undertaken in the highway irrespective of its subsequent performance. A cost of [REDACTED] per square metre has been suggested as part of discussions instigated by the Scottish Roadworks Commissioner and the DfT and directed at the utilities that work in Scotland. There is currently significant engagement by the Scottish utilities to inform the DfT. At the December 2018 meeting between members of the reinstatement specification working group representing England and Wales the DfT street works policy lead [REDACTED]

[REDACTED] If a standard cost per square metre charge were to be implemented this would likely result in an on cost for Electricity North West in excess of one million pounds per annum.

10.3 Section 78 NRSWA – Half width reinstatement

There is a proposal to enact Section 78 of NRSWA that would allow highway authorities to direct how much reinstatement of their assets should be undertaken when a utility wishes to undertake works in the highway.

Under existing legislation utilities are only obliged to reinstate the area directly excavated during their street works activity. The enactment of Section 78 of NRSWA would allow the highway authority to insist on either half-width or full-width footway or carriageway reinstatement on a case by case basis, thereby significantly increasing utilities' costs associated with reinstating the highway.

This issue has been raised in Scotland and has strong support from ministerial level and across the roads authorities. Although it currently has less evidenced support in England it should not be ignored in future Uncertainty Mechanism considerations.

10.4 Street Manager

Street Manager, as the replacement to the current Electronic Transfer of Notices (EToN) notification IT system, will be mandated progressively by the DfT from April 2020 onwards. This will require Electricity North West to [REDACTED]

Electricity North West will incur IT system development costs as a result of the transition [REDACTED] to Street Manager and further IT system costs to maintain a robust interface between the differing systems, as well as additional training costs.

At the present time the "go live" date and additional costs associated with Street Manager have not been quantified in detail but it is expected that these costs will be incurred by Electricity North West within the current RIIO-ED1 period.

10.5 Permit Scheme Reviews

The Statutory Guidance for Highway Authority Permit Schemes requires highway authorities to review their permit schemes annually for the first three years of the scheme's operation and then

again on a three year cycle. Within this review the authority will consider the financial performance of the schemes and will allow a review of permit fees. Whilst fees cannot be set at a level that exceeds the current maximum level set by the DfT it is possible that any review of permit fees will result in increased permit fees for some works.

The most significant risk to Electricity North West in terms of permit fee increases relates to

[REDACTED]

[REDACTED]

Additionally, [REDACTED] has confirmed that it is revising its permit fees but has not as yet confirmed either the revised rates or the effective date. We have therefore not factored either of these expected increases into our forecasted costs and consider these are a cost headwind that we will need to manage for the remainder of RIIO-ED1.

10.6 Revisions to the Specification for Reinstatement of Highways (SROH)

The consultation associated with the proposed revisions to this statutory code of practice has recently been undertaken and closed on 6 May 2019⁸

There are currently proposals within the consultation to increase the reinstatement guarantee period from the existing two year period to five years and as such we would reasonably expect this additional requirement to be reflected in increased contractor rates.

10.7 Underground contract retender

Electricity North West's existing frameworks for underground cable installation expire on 31 March 2020. The competitive tendering process commenced earlier this year. The value of the new frameworks is significant and is governed by the strictures of OJEU legislation. Tenders were returned to Electricity North West on 17 May 2019 and are currently being analysed. It is not possible at this stage to share pricing information from the tender due to the complexity and very preliminary stage of us populating the pricing model. There is however an anticipation of a significant increase in those rates that are impacted by changes in street works legislation. Despite this we have not reflected this in our forecasting as the competitive tender process is still ongoing.

8

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/782201/reinstating-road-after-street-works-consultation-document.pdf



11. Conclusion

11 Conclusion

Electricity North West has carried out a comprehensive review of its street works undertakings and is confident that its submission is an accurate and robust quantification of the additional eligible efficient costs of £10.33m (2012/13 prices) incurred, or expected to be incurred, as a result of the widespread implementation of permit schemes across the North West of England since the beginning of RIIO-ED1.

The costs included have been carefully assessed for their eligibility. Additionally, some areas represent ongoing cost risks we expect to manage, such as upward permit fee revisions and increasing contractor rates.

We have not asked in this reopener for any funding for implementing potentially costly lane rental. It is possible that one or more highway authority will develop their current permitting scheme into a lane rental approach but at this stage it is still too uncertain to ask consumers to fund us for this. Instead, we propose a logging up approach and reopener at the start of RIIO-ED2. We consider an ex-post route for efficient lane rental cost recovery protects our customers from the risk of funding lane rental impacts on our business that do not materialise due to continued uncertainty in this area.

Our submission contains a substantial level of evidence, is carefully articulated and is supported by an independent expert review of the activities. Our intent to submit this reopener has been clear to Ofgem for some time as we now have a full rollout and therefore certainty on the scale of street works permitting schemes in our area. The May 2019 reopener therefore fits well with the changes we have seen and the certainty we now have.

Our proposed adjustments (£m, 2012/13 prices) in respect of Specified Street Works Costs, as defined in Charge Restriction Condition CRC 3F of the Electricity Distribution Licence, are as follows:

Financial year	15/16	16/17	17/18	18/19	19/20	20/21	21/22	22/23	Totals
Permit fees	■	■	■	■	■	■	■	■	2.99
Administration	■	■	■	■	■	■	■	■	1.69
Condition costs	■	■	■	■	■	■	■	■	5.65
Totals	1.09	1.16	1.45	1.35	1.27	1.37	1.34	1.30	10.33

Our materially increased street works costs have and will bring benefits to consumers through lower impacts from our activities on their daily lives. However given the scale of change we have already experienced it is vital that Ofgem makes the appropriate adjustment to our allowances in line with our RIIO-ED1 licence and Ofgem's strategy decision.



12. Appendices

12 Appendices

Number	Details	Format
1	[REDACTED]	[REDACTED]
2	[REDACTED]	[REDACTED]
3	Permit fees matrix by highway authority	Excel spreadsheet
4	[REDACTED]	[REDACTED]
5	[REDACTED]	[REDACTED]
6	[REDACTED]	[REDACTED]
7	[REDACTED]	[REDACTED]
8	[REDACTED]	[REDACTED]
9	Electricity North West Risk Control and Assurance report	PDF
10	Arcadis UK advisory report	PDF
11	Highway Authority and DfT lane rental engagement	PDF
12	Rawtenstall case study	PDF