

# Annex 7: Bespoke Outcome Delivery Incentive – Dig, fix and go: Our emergency work commitment

This appendix sets out the details behind our bespoke outcome delivery incentive covering improvements in service for emergency street works reinstatement durations in RIIO-ED2.

December 2021

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## Executive Summary

As part of our RII0-ED2 business plan we have included a bespoke financial incentive proposal concerning the duration of our emergency street works, particularly focusing on reducing the time taken to reinstate works after our essential fault repairs have been undertaken, thus bringing the benefit of reduced disruption to our customers lives. Set out in this document is our proposal in detail.

The development of this proposal has been led from the start by customers through our understanding of what they told us, and by acting on the insight gained through our enhanced stakeholder engagement. We have worked closely with our customers, consumers and wider stakeholders in understanding their priorities and how they value these, and our service in this area is consistently towards the top of their list. The plans have also been discussed in detail with our Customer Engagement Group (CEG), who have input to, and helped shape, the proposal contained herein.

On average we incur 33,848 days of street works across an annual volume of 5,880 emergency fault jobs, with an average duration of 5.8 days. Using this, and government source data, we have estimated that across a 5-year period this would equate to a total impact on society of £614m, or £123m<sup>1</sup> per annum, using the value of time associated with the disruption of our essential emergency fault works. Using the same method as used for the above and set out in [section 6.6](#), we estimate that reducing the duration of our works by one day on average would benefit society and North West consumers by £21m<sup>2</sup> per annum.

Additionally, as evidenced through our willingness to pay research, customers understand and value highly reducing the disruption to their lives from our street works. Our bespoke proposal provides a mechanism to drive benefits to customers whilst also putting the delivery risk on the company and providing a funding mechanism that only applies if we deliver benefit through improvements in service to consumers and stakeholders in the North West.

Whilst this proposed mechanism is bespoke to our operating area, based on the priorities of our consumers and stakeholders, we also aim to ensure that this can be transposed and implemented in other regions, through our commitment to share best practice experience with other network operators and utilities. This will help to deliver improvements in other regions and sectors, ultimately with the potential to widen the benefits to wider society considering this as a whole system benefit.

We have considered very carefully the risk and reward balance, considering trade-offs between how this incentive is funded and the impact on bills. Our proposal is therefore balanced in this consideration with mechanisms provided in the incentive design that protect customers and stakeholders, as well as setting a penalty/reward incentive rate which is fair considering the activity and requirements needed to deliver the aspired transformational change in service.

Below we have provided a short executive summary of the bespoke proposal set out in this document:

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<sup>1</sup> Based on the social proxy calculations set out in [section 6.6](#)

<sup>2</sup> Ibid.

Summary	Proposal
Name	<i>Dig, fix and go: Our emergency work commitment</i> – as decided by our online community
Definition	The average duration of Electricity North West’s unplanned emergency fault street works in network days, as measured from the time of the site opening until the works are completed. This includes the full period of disruption for a single job covering both the work to find and fix the fault, as well as the time taken to reinstate the works
Consumer case/benefit	<p>Quicker completion and removal of works leading to; reduced societal, environmental and economic impact of essential emergency operations including the impact on wellbeing of, for example, noise and air pollution of extended works duration.</p> <p>We have estimated the societal benefit per average day reduction across our unplanned emergency fault street works as £21m per annum.</p>
Mechanism	Output Delivery Incentive – Financial (ODI-F)
Type	Reward and Penalty
Baseline service target	5.1 days (fixed)
Cap service target	3.0 days
Collared service penalty level	7.2 days
Dead band	No dead band
Incentive rate	+/- £1.96m (per average day reduction per annum)
Societal benefit/impact	+/- £10.67m (per average day reduction per annum)
Max incentive payment	+/- £4.11m (per annum)
Percentage Baseline revenue	+/- 1.02% <sup>3</sup> (per annum) proposed to be capped at 1.00%
Other commitments	<ul style="list-style-type: none"> <li>• Sharing best practice experience with other network operators and utilities via local and national fora such as Street Works UK, ENA street works forum, and North West Joint Utilities Group (JUG).</li> <li>• Monitor and report defect and temporary reinstatement volumes to ensure that the delivery of this commitment does not have a detrimental effect on reinstatement quality. Achieved through highway authority inspections and internal inspections undertaken by our Street Works compliance teams.</li> <li>• To publish this data, along with duration data, on our website.</li> </ul>

<sup>3</sup> Revised estimation from draft business plan to reflect the final plan baseline Totex. We are proposing that the percentage and incentive payment is capped at the 1.00%.



## 1. Introduction and Background

We undertake approximately 5,880<sup>4</sup> emergency fault works that require a street works permit annually. Permit schemes affect everyone who uses roads in that area as a consequence of utilities such as ourselves fixing our infrastructure through excavation and subsequent reinstatement of these essential operations. We recognise that, in fulfilling our essential and vital duties to our consumers in the North West, our operations and activities have a consequential impact on peoples' daily lives. In short, every one of these jobs will have an impact on consumers in our region to a greater or lesser degree through the disruption they cause whilst completing essential tasks to restore power to customers.

We also understand that the impact is not limited to travel disruption and economic impact; there are societal and environmental consequences through the impact on wellbeing of, for example, noise and air pollution of extended works durations. Additionally, it was presented by the Department for Transport in 2012, that:

*“Street works (i.e. works by utility companies and others with apparatus in the street) are a significant cause of delay and disruption. On some estimates, congestion resulting from street works costs some £4.3 billion a year in delay costs. However, these costs are borne by society rather than by those carrying out the works (i.e. they are “externalities”). Works promoters are incentivised to focus on their own costs (to maximise profit), not these wider costs to society.”<sup>5</sup>*

In RIIO-ED1 our focus as a business was to ensure that the impact of our operations wasn't disproportionately borne by different parts of our operating region. The geography of the region we serve means we deliver our services to a diverse range of customers in a variety of urban, semi-urban and rural environments including Greater Manchester and the Lake District. This leads to challenges and differing levels of impact on consumers from our activities.

Our work in RIIO-ED1 to level up how quickly we undertake reinstatement operations across the region operated within what is affordable within the current policy framework<sup>6</sup>. We focused on levelling up the service provided to all consumers across our operating region and this has ultimately been successful. This targeted approach at a regional level in RIIO-ED1 means that all customers now receive the same good service level maximising the efficient offering provided in this regulatory period.

Our RIIO-ED1 approach has led to an improvement and levelling up of services across the region, culminating in an average performance level of 5.2 days emergency fault street works duration in 2020/21 from an average of 6.7 days in 2016/17 and an average of 5.8 days across the RIIO-ED1 period to 2020/21 as shown in figure 1.1. Our operational speed in completing restoration and reinstatement works is in line with other utilities operating in our area as well as on a national basis<sup>7</sup>.

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<sup>4</sup> Average of 5,880 jobs across the period of RIIO-ED1 to end of financial year 2020/21

<sup>5</sup> The Street Works (Charges for Occupation of the Highway) (England) Regulations 2012 impact assessment, Department for Transport, 2012

<sup>6</sup> Where improvements above this are not actively incentivise to minimise disruption beyond what is efficient from a Totex point of view

<sup>7</sup> Further detail is set out in [section 5.5](#) of this document

Figure 1.1: RIIO-ED1 average performance levels of our emergency fault street works

Period (financial year)	Number of jobs	Total days	Average duration
2016-2017	5,497	36,880	6.7
2017-2018	6,204	38,146	6.1
2018-2019	6,176	33,114	5.4
2019-2020	5,506	29,575	5.4
2020-2021	6,016	31,526	5.2
<b>Average</b>	<b>5,880</b>	<b>33,848</b>	<b>5.8</b>

We have listened to customers and stakeholders triangulating various sources of insight. Through this we have become even more conscious that average performance across our region, even at the level it is at currently, still impacts on our customers and we are therefore focussed on what we could do in RIIO-ED2 to minimise this impact as much as possible, bringing incremental benefits to the customers across the region we serve.

To this end, we included as part of our wide enhanced consumer and stakeholder engagement for RIIO-ED2 an attribute associated with the aim of reducing the overall duration of our emergency fault street works across the region. This considers the total duration of the works, but with a focus on the time taken for reinstatement where currently approximately two thirds of the duration is concentrated, to improve the service that consumers and stakeholders received from us, in turn lowering the impact caused because of our necessary and vital work.

We have considered and discussed in detail with our stakeholders and consumers whether going beyond the optimised service levels achieved in RIIO-ED1 was prioritised and valued by our consumers and stakeholders. This was done considering the:

- **Purpose:** The output delivery incentive (ODI) incentivises the company to reduce the duration of disruption because of our emergency fault street works, with a focus on the time taken to reinstate works.
- **Benefits:** Are through quicker removal of works and subsequent reduction in customer and stakeholder disruption including but not limited to; reduced societal, environmental and economic impact of essential emergency works through minimised disruption from unplanned emergency fault works.

Ultimately this proposal received strong support across all of our engagement and was supported strongly by both domestic and commercial customers. Based on this engagement and the feedback we have received throughout our ED2 plan development, our aim for RIIO-ED2 is to limit that impact as much as possible, driving down the duration times in line with consumer preference. This proposal is a key feature within our stakeholder and consumer led plan and we are committed to proposing this financial outcome delivery incentive (ODI-F) fully minded of the input and shaping we have had from our stakeholders.

We set out in further detail in this document the consumer and stakeholder engagement results at all stages of our enhanced engagement for our RIIO-ED2 business plan as well as explaining why we

consider a financial ODI (ODI-F) to be the most appropriate instrument to ensure the right outcome for consumers, stakeholders and the company.

Figure 1.2: Emergency fault street works by numbers

Emergency fault Street works by numbers	
169,241	Days of emergency street works from 2016/17 to 2020/21
33,848	Days of emergency street works on average
5,880	Approximate number of emergency fault street works undertaken annually
6.7	Average duration of emergency fault street works across financial year 2016/17
5.8	Average duration of emergency fault street works across ED1 period to date (20/21)
5.2	Average duration of emergency fault street works across financial year 20/21
2/3	Proportion of the total duration taken to reinstate after fix has been actioned

### 1.1. Section summary

The proposal builds on our work in RIIO-ED1 to level up how quickly we undertake reinstatement operations across our region given consideration of what is affordable and deliverable within the current policy framework. It also the potential to unlock large consumer benefit across our operating region through quicker removal of works and subsequent reduction in customer and stakeholder disruption. The benefits include, but are not limited to; reduced societal, environmental and economic impact of essential emergency works through minimised disruption from essential unplanned emergency fault works.



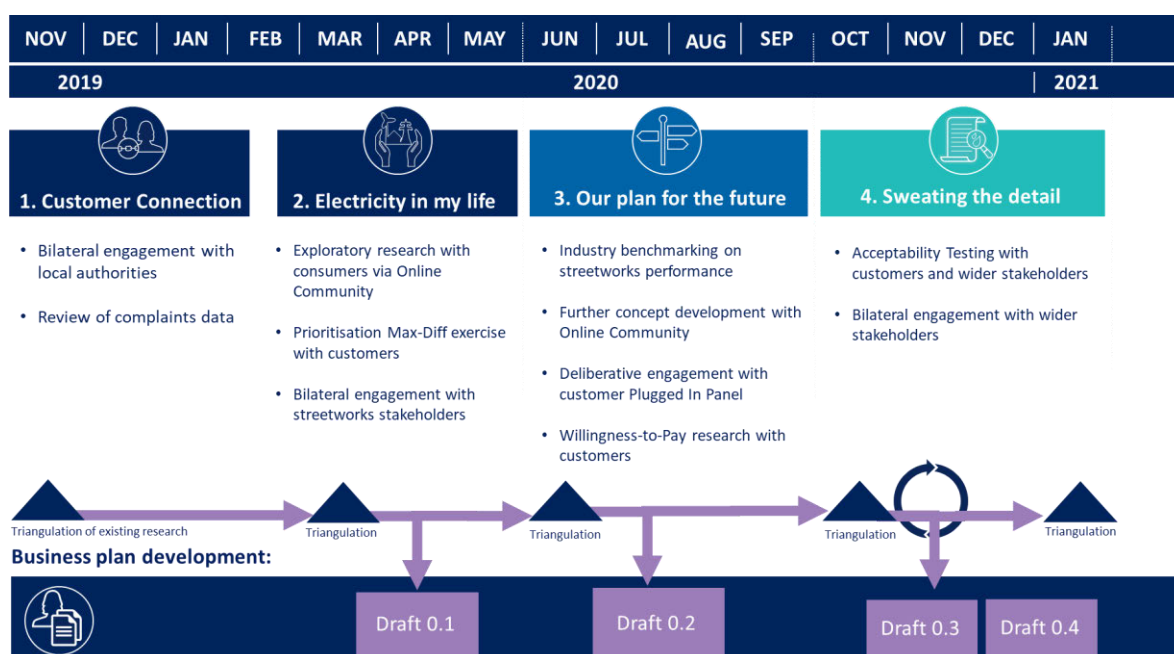
## 2. Stakeholder engagement

We have developed this bespoke ODI and tested it with our consumers empirically through our qualitative and quantitative research in response to, and constantly considering, the customer and wider stakeholder engagement we have undertaken as part our business plan development. This is reflected in the proposals set out in this document.

Our consultation was delivered in six phases. We began by canvassing broad opinions on a range of issues related to our customers and stakeholders in phase one, before narrowing the focus and increasing the level of detail with each successive phase. The final two phases were designed to enable final refinement and assurance of our plans before final submission of the business plan.

The development of our stakeholder-led proposal was aided by a range of inclusive and accessible engagement mechanisms (illustrated in Figure 2.1 below).

Figure 2.1: Iterative development of the emergency street works proposal



As part of this approach we used a process called triangulation to inform our engagement approach and iterate our proposals. Triangulation is not about validating current or emerging thinking but deepening and widening understanding by capturing different dimensions of the same phenomenon so that new insights can be found to improve the overall quality of organisational decision making. It is a process which interprets a range of different inputs, reflects on how information has been processed and informs further steps required.

### 2.1. Street works identified as an emerging area of importance

In the first phase of our triangulation process we heard that local authorities would like us to work more collaboratively with them to identify opportunities for delivering street works in a more coordinated manner that minimises congestion. This followed concerns raised regarding incidences of third party damage to utility services. The concerns of local councils stem from the prolonged nature of disruption associated with repairs, and the impact on traffic flow in busy locations.

We also heard that traffic congestion caused by street works is not only an irritation but adds to noise and air pollution, particularly along roads where children walk to and from school. Stakeholders told us that they were concerned that Manchester<sup>8</sup> is among the top 30 places in the UK for the worst air pollution in the UK - exceeding the limit of 10 micrograms per cubic metre.

A detailed literature review revealed that the Street Works (Charges for Occupation of the Highway) (England) Regulations 2012 were informed by an Impact Assessment conducted by the Department for Transport that reviewed the impact of street works on society. It concluded street works (i.e. works by utility companies and others with apparatus in the street) are a significant cause of delay and disruption. On some estimates, congestion resulting from street works costs some £4.3 billion a year in delay costs. However, these costs are borne by society rather than by those carrying out the works (i.e. they are "externalities").

The evidence therein recognises the financial impact to consumers because of delays and congestion caused by street works. Our experience during ED1 to date indicates that this is an important issue to customers with complaints arising because of street works activity featuring prominently in our complaints data (figure 2.2).

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<sup>8</sup> <https://www.mmu.ac.uk/news-and-events/news/story/12401>: Manchester is known for being one of the worst cities in the UK for poor air quality, with dangerous levels of toxic pollutants having a devastating impact on the health of those living in the region. In 2019, it was reported that air pollution was costing the regional economy up to £1bn annually and it is believed that more than 100 people die every year from toxic air in the city. Toxic air affects everyone but for some it can be deadly - children, pregnant women, older people and people with medical conditions like asthma, heart attack and COPD are particularly vulnerable.



Figure 2.2: Top ten complaints data ranked by volume for the past 5 financial years

Area	FY15/16	FY16/17	FY17/18	FY18/19	FY19/20	
Top 10 Complaint themes ranked by volume	1	Off Supply - Fault (EGS2)	Off Supply - Fault (EGS2)	Off Supply - Fault (EGS2)	Off Supply - Fault (EGS2)	Off Supply - Fault (EGS2)
	2	Restoration Time	Off Supply - Main Fuse (EGS1)	Off Supply - Multiple Interruption / Transient (EGS2A)	No updates received / Request for Updates	Off Supply - Multiple Interruption / Transient (EGS2A)
	3	Off Supply - Multiple Interruption / Transient (EGS2A)	PSI - Not Notified (EGS4)	PSI - Not Notified (EGS4)	Off Supply - Multiple Interruption / Transient (EGS2A)	No updates received / Request for Updates
	4	Appliance Damage	Off Supply - Multiple Interruption / Transient (EGS2A)	No updates received / Request for Updates	Appliance Damage	Appliance Damage
	5	Causing an Obstruction / Access issues	Appliance Damage	Appliance Damage	Causing an Obstruction / Access issues	Causing an Obstruction / Access issues
	6	Claiming / Reporting Damage	Causing an Obstruction / Access issues	PSI - Further Info Required	Update on site works - During or After Works	Claiming / Reporting Damage
	7	Supply Update	Substation Grounds in poor state	Causing an Obstruction / Access issues	Claiming / Reporting Damage	Update on site works - During or After Works
	8	Substation Grounds in poor state	Claiming / Reporting Damage	Substation Grounds in poor state	Unacceptable Behaviour	PSI - Further Info Required
	9	Update on site works - During or After Works	PSI - Further Info Required	Claiming / Reporting Damage	Substation Grounds in poor state	Unacceptable Behaviour
	10	No Notification of Planned Work (Not PSI)	Open Excavation - End Date Request	Update on site works - During or After Works	Open Excavation - End Date Request	PSI - Not Notified (EGS4)

## 2.2. Understanding the impact of street works on our customers

To understand why street works are a root cause of customer complaints we asked members of a specially recruited and informed online community of North West customers to reflect on how roadworks affect them personally. The range of impacts included health and wellbeing, environmental, productivity and financial, including the following:

- Extended travel time due to congestion
- Stress and anxiety from lost time spent in roadworks
- Safety concerns about holes in the ground
- Soil, dirt and rubble that results from an excavation
- Air pollution from traffic

- Noise pollution
- Disruption to local businesses/ trade
- Utilities not clearing up to previous standard
- Accessibility issues.

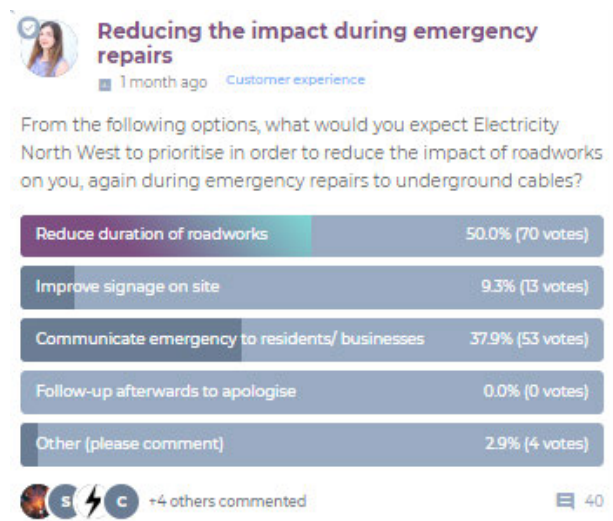
*“Roadworks can cause noise problems for residents. The visually impaired and mobility scooter users often find it difficult to negotiate reduced width pavements when the space is encroached upon by signage, barriers etc.”*

Fundamentally participants felt that the delay caused to their journey (*often one that they are undertaking without a sufficient buffer for delays*) by roadworks and increased traffic lights has the biggest knock-on impact to their health and wellbeing. Some members also suggested improving signage on site while others found it frustrating if roadworks and temporary traffic lights were left unmanned, without any visible sign of work being undertaken.

*“Whenever I see gasworks etc (and especially when Balfour are doing works) their signage is very visible. Similarly, with Openreach.”*

Participants were subsequently asked what they expected the company to do to reduce these impacts and a poll in which 140 people took part demonstrated that reducing the duration of roadworks and to a lesser extent improving communication to residents and businesses are the most highly valued strategies as set out in figure 2.3.

Figure 2.3: Online community engagement results



Anecdotally some customers surmised that delays may be caused by the number of differently skilled parties that may be involved in each stage of the process:

*“Do the repairs quickly and efficiently. Only have one team that does all the job. Not as I've seen with some companies who have one lot to dig the hole, one lot to repair the problem and then another lot fill the hole in. All this adds to the time the road can't be used fully”.*

In response to the insights generated during the triangulation process we drafted a business plan proposal to test with customers (figure 2.4) which included a description of the initiative, the commitment being made, how it will work in practice and the benefit to customers. The template used for this engagement was in keeping with that extensively used in our business plan Acceptability Testing and therefore served as a useful pre-test before this phase of engagement started. The

proposal was deliberately left unnamed, giving customers an opportunity to be creative and make suggestions themselves.

Figure 2.4: Our drafted proposal to test with customers

**Business Plan Proposal [draft]**

Emergency roadworks are required if our underground cables are damaged. This allows us to repair them as quickly as possible and get the power back on for customers.

We propose a commitment to reduce the time taken to finish our roadworks after emergency repairs from 5 days down to an average of 3 days.

This is measured from the time of the site opening and the works being completed, as defined by the works being reinstated and made good. The commitment explicitly excludes planned (non-emergency) activity where there works maybe of longer duration due to the complexity of the works being undertaken and where ahead of time planning can be undertaken to minimise disruption.

The benefit to customers will be the reduced societal, environmental and economic impact of decreasing the duration of essential repairs to faults that require roadworks.

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The feedback on the proposal was very positive with 90% (see figure 2.5) of customers supporting it. However, it should be noted that qualitatively some customers pointed out that, whilst increased efficiency was very appealing, it should not be at the expense of the safety of employees or customers when undertaking the work or the quality of the re-instatement of the road or footpath.

*“I only support the proposal if it keeps the workers safe, having to reduce from an average of 5.1 days to 3 must come with some risk to workers?”*

Figure 2.5: Proposal engagement results

This week, Electricity North West would like your views on its business plan proposal relating to roadworks, which can be seen in the image above.

Firstly, we'd like to know, do you support this business plan proposal? Let us know why in the comments!

Yes	90.2% (83 votes)
No	1.1% (1 votes)
Unsure	8.7% (8 votes)

[R](#) [P](#) +11 others commented 30

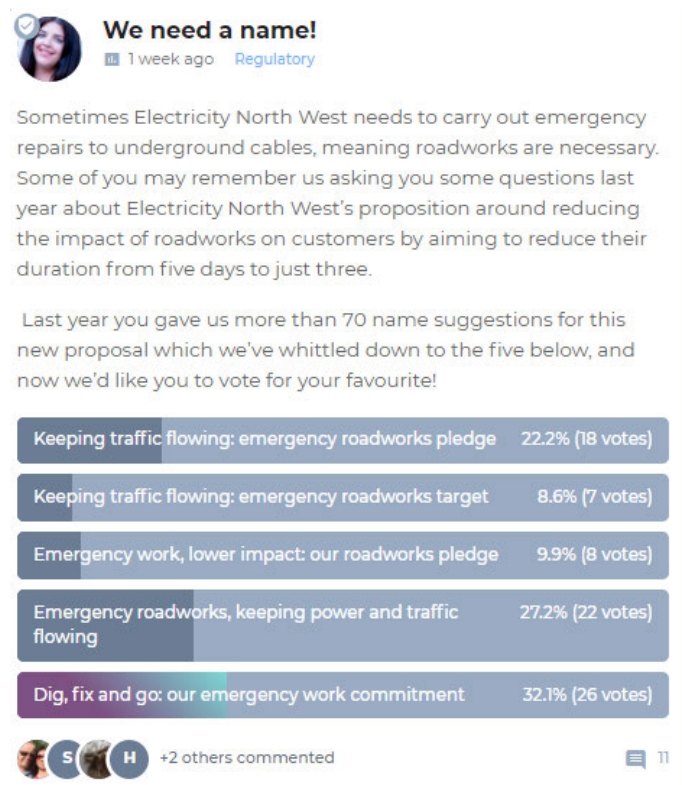
76 suggestions were made for the name of the proposal including, but not limited to, 3-day promise 3-day essential fix, an efficient and quicker fix, cables to lay with less delay, committed to three, dig, fix and fill, elec3fix, ENW commuter commitment, ENW smart fix, essential work, less impact, fair repair promise, faster fix and fewer fumes, faster repairs promise, high speed cable care, it can be



done in three, our roadworks resolve, roadworks promise, speed and safety guarantee and we fix it in three!

The 76 naming suggestions were then reviewed and formed the basis of a shortlist of names which we again asked our online community to vote on to choose the final name of the proposal. The results shown in figure 2.6 are the conclusion of this process and the name of the proposal being “Dig, fix and go: Our emergency work commitment”.

Figure 2.6: Proposal engagement - ‘We need a name!’ results



The findings from engagement with an informed Public Panel (drawn from a demographically representative sample of customers) added further weight to those observed from the Online Community. The panel was presented with nine different costed proposals intended to improve customer service during ED2. Reducing the time taken to complete road repairs after faults was ranked first with 29% of the vote. Members cited the significant disruption caused to road users, cyclists, pedestrians, residents, emergency services and businesses, resulting in negative financial impacts for local economies:

*“Often repairs are outside a row of shops which prevents people from parking and pedestrians getting access to the shops, thereby causing a loss of business.”*

*“It is costing the economy hundreds of millions a year in lost productivity.”*

A range of engagement channels (e.g. bilateral discussions) were used to further discuss our business plan with wider stakeholders. We asked stakeholders if we should either:

- carry out temporary reinstatements with a view to clearing the highway in shorter timescales and then go back to complete a permanent reinstatement; or
- complete the permanent reinstatement first time?

We heard that first time reinstatement is preferred because it avoids further congestion and minimises our environmental impact. Furthermore, stakeholders expressed an expectation that our operatives will be visible on site. This minimises the possibility of the public driving through roadworks with seemingly no one around. As the nature of emergency works allows 24/7 working stakeholders felt that durations should not be excessive. This feedback emphasised the importance of repairing faults quickly and fast tracking the reinstatement so that sites are cleared as quickly as possible.

### 2.3. Quantifying the value of improved street works reinstatement

Further to the emergency street works proposal performing consistently strongly with customers in the Plugged in Public Panel, a review of operational data led to two improvement levels being identified; including a stretching transformational performance target of three days.

We then considered whether this proposal should be included in Willingness-to-Pay (WTP) research. To inform this decision a preference ranking based on a 'MaxDiff' survey was used to help narrow down a set of 24 attributes to a more manageable set of 12, for which customer valuations would be estimated in a WTP survey. 351 customers (267 household customers; 84 business customers) participated in a MaxDiff trade-off exercise. Reducing the time taken to finish our roadworks after emergency repairs to underground cables ranked 10<sup>th</sup> in the survey.

We then set out an approach designed to prioritise initiatives for inclusion in WTP research on a risk basis. Risk was considered in terms of the evidence base required to ensure the legitimacy of outcomes. For this reason, new initiatives and those likely to have a substantive bill impact necessitated a higher burden of proof. The following criteria were used to shortlist attributes:

1. **Will the initiative have a material impact on customers' bills?** The materiality threshold is > 0.5% increase in bills (£5m annual investment = 45p pa) ~penny per week.
2. **Is there a tension between customers' and wider stakeholders' views?** In addition to the materiality threshold being met, is further evidence required to resolve conflict between customers' and wider stakeholders' views and set appropriate targets?
3. **Is the initiative a new/novel idea?** Substantive evidence is required to support an output which is new/different and therefore introduces risk.

Triangulation analysis (including data from the MaxDiff exercise) presented no evidence of a tension between customers' and wider stakeholders' views on the importance of improved street works reinstatement. The emergency street works proposal was shortlisted for WTP based upon its potential bill materiality and novelty as a bespoke new proposal.

Accent and PJM Economics were commissioned to conduct a programme of research exploring customers' priorities and willingness to pay for a range of possible service improvements/initiatives ('attributes') to enable the potential application of WTP values in cost benefit analysis and provide further insight and evidence to inform the potential content of our business plan.

As part of the work, we tested that respondents understood the questions. The draft proposal was generally well understood in a qualitative phase of WTP research, however the information provided was updated to emphasise the *emergency nature* of the roadworks after it emerged that some respondents had assumed roadworks were planned, thereby making it easier to mitigate the impact of them to the local community.



In a statistically robust quantitative WTP survey of 1,570 customers (1,215 household customers; 355 business customers) proposals to reduce emergency roadworks to an average of four days and a stretch target of three days were tested.

The change in the total annual electricity bill was shown to household participants in £/household/year<sup>9</sup>, as a percentage of the annual electricity bill, and as a percentage of Electricity North West’s component of the bill, to ensure maximum transparency and avoid any confusion as to whether the percentage referred to the total bill or Electricity North West’s component. Due to the great variation in bills across business customers and the fact that it is not easy for these participants to provide accurate estimates of their organisations’/ businesses’ total electricity bills, business participants were shown bill changes in percentage terms only.

The gain in service moving from level 1 to level 2 (see figure 2.7) was significant, adding on average a further £2.11 in value for domestic customers. This gain was also substantive enough for the service to increase from 5<sup>th</sup> to 1<sup>st</sup> position for businesses, indicating that a 3-day service level was highly valued and appropriate for inclusion in Acceptability Testing.

Figure 2.7: Willingness to pay (WTP) results

Level	Reduce Duration of Emergency Street works	Household	Business
Current level	Emergency roadworks average 5.1 <sup>10</sup> days to complete emergency repairs, resurface and clear the site		
Level 1	Emergency roadworks average 4 days to complete repairs, resurface and clear the site	£2.03 <i>Ranked 2nd</i>	0.14% <i>Ranked 5<sup>th</sup></i>
Level 2	Emergency roadworks average 3 days to complete repairs, resurface and clear the site	£4.14 <i>Ranked 1<sup>st</sup></i>	0.74% <i>Ranked 1<sup>st</sup></i>

On average households told us that they were willing to pay an additional £28 per year towards their most valued package of service improvements (including reducing the duration of emergency street works). In seeking an optimal service package, we have been very conscious that the cost of improvements will partly fall on customers in vulnerable circumstances or fuel poverty. Whilst we heard a call for stretching improvement, a significant minority of households reported sometimes struggling to pay their bills. Future customers also revealed a social concern about the continued impact of COVID-19 making it increasingly difficult for customers in poverty to meet their financial obligations. In response we set ourselves a higher hurdle of 80% customer acceptability to be passed to justify investment, than simply the majority of bill payers being in favour.

The higher acceptance hurdle we set created a price cap of an additional £9.80 per household. To ensure consistency in our approach, we applied the 80<sup>th</sup> percentile to customers’ willingness to pay for each individual attribute. The data for emergency street works presented in the table below (figure 2.8) indicates that 80% of household bill payers are willing to pay an additional £1.47 per year for the most improved service level in respect of this specific proposal.

<sup>9</sup> This figure was calculated as the product of the percentage change (from the experimental design) and an estimate of the current total annual electricity bill provided by the participants. 168 household participants (out of 1,215) were not able to provide an estimate of their electricity bill nor of their combined energy bill. These participants were informed that the average annual electricity bill for a domestic household in the the North West region was around £490, and this figure was used to convert percentage changes into monetary amounts.

<sup>10</sup> Note: 5.1 days used for testing represented a forecast outturn position for 20/21, actual outturn was 5.2 days



Figure 2.8: Acceptability threshold WTP results (80<sup>th</sup> percentile)

Level	Reduce Duration of Emergency Street works	Household	Business
Current level	Emergency roadworks average 5.1 days to complete emergency repairs, resurface and clear the site		
Level 1	Emergency roadworks average 4 days to complete repairs, resurface and clear the site	£0.72 <i>Ranked 2nd</i>	0.05% <i>Ranked 5<sup>th</sup></i>
Level 2	Emergency roadworks average 3 days to complete repairs, resurface and clear the site	£1.47 <i>Ranked 1<sup>st</sup></i>	0.24% <i>Ranked 1<sup>st</sup></i>

## 2.4. Quantifying the acceptability of our street works reinstatement proposal

Ongoing triangulation of customers’ and wider stakeholders’ views on emergency street works informed the development of our business plan proposal. The WTP results indicated widespread appeal of delivering the most improved level of service (three days). This was reflected in the proposal drafted for inclusion in research designed to test the acceptability of our business plan (figure 2.9).

Figure 2.9: Proposal drafting for acceptability testing

**Emergency Streetworks**

**Reduce the amount of time to repair roads and footpaths following emergency fault repairs to three days (currently target is 5 days).**

Emergency roadworks are required if our underground cables are damaged. This allows us to repair them as quickly as possible and get the power back on for customers.

Roadworks can cause disruption to local communities and commuters through extended travel time, loss of trade to businesses, noise and air pollution. Last year we managed 4,556 emergency roadworks lasting a combined total of 23,132 days.

We will work more flexibly to reduce the time taken to finish our roadworks after emergency repairs from 5 days down to an average of 3 days. This is measured from the time of repairs commencing to the site being tidied up and restored to its previous condition.

**BENEFIT: Reduced disruption caused by roadworks.**

We commissioned Accent to design and implement a statistically robust and representative programme of research to test the acceptability of our plans. 1,534 people took part in total (962 domestic customers, 539 non-domestic customers and 33 future customers).

97% of domestic customers and 96% of business customers surveyed found this proposition understandable. 84% of domestic customers were supportive of our plans, compared to 91% of business customers. Just 1% of all customers were unsupportive. It ranked 12th out of 41 proposals evaluated, demonstrating strong support to proceed with the proposal in its current format.

At this point a triangulation exercise was conducted which highlighted that some of the 41 proposals in our plan required further engagement with stakeholders and potential refinement before inclusion

in the business plan. The emergency street works proposal was considered to have a high-quality evidence base which supported proceeding with the commitment in its current format.

## 2.5. Customer engagement group (CEG)

Throughout the development of our incentive proposal we have liaised extensively with our CEG as well as customers and stakeholders more generally as set out in detail in this section of the proposal.

Our CEG provided specific feedback on the WTP methodology and on our bespoke street works proposition tested with the customers, before providing input to, and feedback on, the design of the incentive itself.

We held two dedicated discussion sessions on the incentive with our CEG at the beginning and end of March 2021. Our CEG has provided input and insight at these sessions which included discussions and views on; our proposals, the benchmarking data used, the social proxy benefit of the proposal and how this has been calculated, as well as the target performance levels and whether these are stretching and valued by consumers and stakeholders.

This valuable input and engagement into the process has helped to shape and enhance the proposal and we will continue to work with our CEG, considering the input they provide. This may further develop our proposal in future stages of the business plan process.

## 2.6. Ofgem

We have, as part of our wider stakeholder engagement, also discussed our proposal with our economic regulator Ofgem throughout its development. The discussions were held as part of our wider bilateral engagement with Ofgem and this proposal was discussed specifically at sessions in September 2020 and February 2021. Feedback from the session including areas of consideration and key evidential requirements have been taken on board and reflected in this document.

## 2.7. Section summary

Customers, consumers and stakeholders are at the heart of this bespoke proposal and have been central to its development. We have also engaged our CEG throughout the process, allocating specific time dedicated solely to discussing this proposal directly with them and considering their views and insights in the shaping of it.

Our engagement has shown that there is almost unanimous support from consumers and stakeholders alike for a transformative improvement in service as set out in this proposal, with it consistently being ranked towards the top of consumer priorities/valuation. There is robustly measurable WTP from both domestic and non-domestic consumers that can be used as one measure to quantify the consumer value/benefit of the proposal. To ensure that we are not over estimating this, and to ensure that we are consistent in the application of WTP results with our acceptability testing threshold we have been conservative in selecting the WTP at 80<sup>th</sup> percentile which understates the benefit that the majority of customers place on this proposal.

### 3. Statement of case for Regulatory intervention

Currently the regulatory framework and legislative requirements create an environment whereby DNOs and utility networks deliver a good level of economically efficient service which is provided for by bill payers in their sectors. We have compared our service with that of our peers and we have set this out in [section 5.5](#).

As set out in [section 2](#), our stakeholders and consumers recognise that the service we provide for them currently is good, but our extensive enhanced engagement has demonstrated that a strong majority would like to see improvements beyond this level.

To facilitate this improvement a bespoke mechanism within the regulatory framework is required as there isn't an existing mechanism in RIIO-ED1 that can facilitate or incentivise the delivery of this transformative improvement in RIIO-ED2.

Legislatively speaking, 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 street works permit; Fixed Penalty Notices (FPNs) and NRSWA Section 74 charges. But neither of these incentivise or provide additional funding to deliver transformative service improvements in this area.

A financial incentive which is tied to the customer value of the benefits from service improvement can only be implemented by the economic regulator. This is the best way to align incentives on this matter and therefore RIIO-ED2 is the best way to deliver the objective for customers. We set this out in further detail in [sections 4](#) and [6](#).

The table below (figure 3.1) sets out the 12 attributes included within our business plan WTP research, including the bespoke street works incentive set out in this document. This aims to show that, of all the attributes tested in WTP, all bar this one have existing mechanisms that can support the delivery of the attribute. We have included a third column which sets out how forecastable we consider, each to be or the level of uncertainty associated with the cost for each attribute. A key consideration is that where the costs are not forecastable, then an ODI-F is the best treatment. Again, we set out the full justification for our proposed regulatory treatment in [section 4](#).



Figure 3.1: Willingness to Pay attributes and regulatory mechanisms

Attribute		Regulatory Mechanism	Costs forecastable with reasonable confidence?
1	Reduce Duration of Street works	Bespoke ODI-F - Requires bespoke mechanism for transformational improvements valued.	No
2	Enhance community energy support	Baseline allowance	Yes
3	Reduce Power Cut Frequency	ODI-F	No
4	Reducing Power Cut Duration	ODI-F	No
5	Leading the North West to Net Zero	Baseline allowance, Uncertainty Mechanisms (UM) and Net Zero reopener	No
6	Expansion of Smart Street	CVP	Yes
7	Enhanced Storm Resilience	Baseline allowance	Yes
8	Facilitating the take-up of low carbon technologies	Baseline allowance and ODI-F	Partially
9	Reducing Multiple Power Cuts	New guaranteed standard	Yes
10	Vulnerable customer support during planned power cuts	Baseline allowance and ODI-F	Partially
11	Improved Reliability in areas of Fuel Poverty	Baseline allowance and ODI-F	Partially
12	Improved reliability in areas of vulnerable customers	Baseline allowance and ODI-F	Partially

### 3.1. Section summary

Without our bespoke proposal, it is highly unlikely that any improvements in service will occur in RIIO-ED2 as the current regulatory framework and the legislative requirements create an environment by which DNOs and utility networks deliver a good level of economically efficient service which is provided for by bill payers in their sectors.

A financial incentive which is tied to the customer value of the benefits from service improvement can only be implemented by the economic regulator and it is this that is required if improvements beyond RIIO-ED1 are to be facilitated as there isn't an existing mechanism in RIIO-ED1 that can incentivise or deliver a transformative improvement in RIIO-ED2.



## 4. Regulatory treatment

We have consulted extensively with our customers and stakeholders through our enhanced engagement as well as working closely with our Customer Engagement Group (CEG) and through other targeted stakeholder engagement such as with local highways authorities. It is clear from all of this evidence gathering that there is strong appetite and benefit for customers and stakeholders in targeted service improvement in this area for RIIO-ED2.

In considering the best way of targeting and delivering these improvements we have considered which regulatory mechanism provides the optimal framework to allow this to happen and to deliver this in the best way for customers and stakeholders.

The regulatory framework for RIIO-ED2 sets out a number of mechanisms that can be proposed/deployed by both DNOs and Ofgem as part of the business plan submission, where Ofgem states that:

*“For RIIO-2, we [Ofgem] propose to use Licence Obligations (LOs), Output Delivery Incentives (ODIs) and Price Control Deliverables (PCDs) to specify:*

- *the services that customers should receive*
- *the levels of performance that the companies need to achieve*
- *the financial and reputational consequences for companies that out- or under-perform against these outputs*
- *the safeguards to protect customers if specific investments are not delivered as planned.”<sup>11</sup>*

In developing our proposals in this area to best reflect our customers’ and stakeholders’ appetite and preferences, we considered the best regulatory mechanism to support the proposal based on the core list of LOs, PCDs and ODIs. We also considered including the cost to deliver this in additional baseline Totex allowance as an additional option. We reviewed ODIs in two forms; reputational (those that have no financial incentive on DNOs to deliver improvements), and financial (where rewards and/or penalties are administered to strengthen the incentive properties of ODIs). Further we consider incentive rewards are also necessary to fund improvements in service where there will be incremental costs of achieving a service level improvement and where we have explicitly excluded these from our baseline cost proposals ([section 5.3](#)).

We set out below the regulatory mechanisms considered and the summary assessment of their individual suitability for use in this service area.

### 4.1. Price Control Deliverable (PCD)

**Definition:** In RIIO-ED2, we [Ofgem] will use PCDs to capture outputs that are directly funded through the price control and where the funding is not transferrable to a different project or output. The purpose of PCDs is to ensure that the conditions attached to the funding of an activity are clear up-front.<sup>12</sup>

**Consideration of how this proposal might potentially apply:** PCDs as regulatory mechanisms lend themselves best to circumstances of defined outputs and are not best placed to apply where the

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<sup>11</sup> RIIO-ED2 Methodology Consultation: Overview, Para 1.14, Ofgem, July 2020

<sup>12</sup> RIIO-ED2 Methodology Decision: Annex 1 - Delivering value for money services for consumers, Para 3.31, Ofgem, December 2020

conclusion is an improved outcome. Under this option the company would receive an increased upfront Totex allowance to make improvements in performance and a PCD would be attached to this increased funding. If the improvements were not delivered, then the allowances would be clawed back for consumers. In short, this mechanism is suited to activities where either the inputs are well defined, and/or the outputs are well defined, i.e. we will deliver 'X' outputs for 'Y' number of inputs. This allows the true up or penalty to be levied on clear basis where, if we haven't undertaken 'X' inputs and/or delivered 'Y' outputs, the PCD returns some funding back to customers/consumers.

**Conclusion:** A PCD including monitoring and tying back activities to outcomes would be subjective, complex and of a level of regulatory burden which is best dealt through a different regulatory mechanism. Specifically, in this instance it is clear, because of the transformational change being targeted, the fact that this proposal is linked to an outcome, rather than clearly defined outputs, and the mix of inputs required being uncertain, that a bespoke PCD is not the best mechanism to use to drive the improvements set out in this proposal. A material barrier to this approach is setting the efficient cost for delivering the PCD and then adjusting for a spectrum of potential delivery levels.

## 4.2. Licence obligations (LO)

**Definition:** This is one of the RIIO building blocks; an output that is contained within the licence conditions of a network company. Ofgem has the power to take appropriate enforcement action in the case of a failure to meet these obligations.

**Consideration for this proposal:** Licence obligations are used broadly to set minimum guaranteed standards by which companies must adhere. Companies are provided with an efficient level of baseline Totex allowance to achieve the minimum standard set out in the LO. The consequences of failing to meet these minimum standards include legal enforcement action by Ofgem.

**Conclusion:** Our proposal is not appropriate for an LO as it is not targeting a guaranteed minimum level of service for customers but instead is designed to deliver transformational service improvement within the regulatory period. In this scenario and proposal, the use of a licence obligation would be disproportionate and would still require other mechanisms to be applied alongside, such as additional baseline Totex allowance where the efficient Totex allowance is hard to set.

## 4.3. Baseline Totex Allowance

**Definition:** Totex includes both capital expenditure (capex) and operating expenditure (opex) and is made up of fast money and slow money.

**Consideration for this proposal:** Totex or baseline allowances are best suited to areas or proposals where the certainty of the ex-ante investment/ requirements needed can be provided or known. Equally it is important that for material expenditure the cost carries a level of homogeneity whereby the additional cost is comparable to that of other DNOs for cost assessment and benchmarking reasons.

**Conclusion:** Because this bespoke proposal is targeting a transformational service improvement in service provision it is not going to be representative of all companies. Therefore, including the cost required to deliver this enhanced service is unlikely to be homogeneous. Further the certainty of requirements, or the forecastability of cost, is not known as this level of improvement has not been delivered previously. Therefore, we have concluded that including the cost of delivering this proposal in our baseline allowances and delivering it through that regulatory mechanism is not the best

regulatory treatment. Because of inherent uncertainty in how to deliver a transformational step change in performance this proposal does not lend itself to setting baseline allowances.

#### 4.4. Reputational Outcome deliver incentive (ODI-R)

**Definition:** In RIIO-2, ODIs will apply where service quality improvements beyond a level that is funded through base revenues may be in the interests of consumers. ODIs can be financial (ODI-F) or reputational (ODI-R).

**Consideration:** Having a bespoke discretionary incentive connected to a customer led proposal underlines our customer and stakeholder led plan. However, a reputational incentive with no upfront allowances would not give the company the resources it needs to improve services to the transformational level valued by consumers. As set out in [section 1](#) we have already optimised our performance based on the allowances we have in RIIO-ED1. As this centred around levelling up of service levels across the region and bringing performance in line with, and in some cases ahead of, benchmark averages, improvements beyond this will required additional resources to achieve. Our customers are asking for a transformational change and place a measurable value on those changes which reflects an approximate 30 percent to 50 percent improvement in the service provided. This cannot be achieved through a reputational benefit alone given the risk, uncertainty and cost to achieve. Details of this are set out in [section 5](#) of this document.

**Conclusion:** We have concluded that it is not desirable to base the proposal on an ODI-R with an increase in baseline Totex funding due to the uncertainty of requirements, and forecast costs, as set out in [section 4.3](#).

#### 4.5. Financial Outcome deliver incentive (ODI-F)

**Definition:** In RIIO-ED2, ODIs will apply where service quality improvements beyond a level that is funded through base revenues may be in the interests of consumers. ODIs can be financial (ODI-F) or reputational (ODI-R).

**Consideration:** As with ODI-R, having a bespoke discretionary incentive connected to a customer led proposal underlines our customer and stakeholder led plan. An ODI-F, if calibrated correctly, facilitates the opportunity for service improvements with no upfront (ex-ante) baseline allowances. This is optimal in a situation where the cost and/or mix activities are uncertain, as it allows the service improvements to be delivered through the financial incentives contained within the ODI-F. A key consideration for this to work is that it does require an incentive rate that is calibrated with sufficient incentive strength. Ultimately the purpose of the ODI-F is to reveal what can be achieved within the bounds of the incentive rate/strength where ideally this is calibrated based on the consumer valuation/benefit arising from delivery of service improvements. Depending on the design of the mechanism, additional customer protection mechanisms such as penalty and reward ensure that companies are equally incentivised to enhance service as they are to avoid service deterioration.

**Conclusion:** Our proposal is that this service improvement is best delivered and funded through a bespoke financial ODI (ODI-F) because:

- **The mechanism reflects its importance to consumers:** Customers and stakeholders strongly prioritise this attribute. This has been one of the strongest performing attributes throughout our stakeholder and consumer engagement research, including the stage of acceptability testing. We have set this out more detail in [section 2](#).

- **Protection for consumers (value for money):** An incentive approach affords protection to both consumers/stakeholders and the company. Consumers only 'pay' for the improvement realised where the company can deliver this efficiently. Customers are also protected from deteriorations in performance because the company is penalised if the service level falls below the threshold set out in the proposal. We set this out in more detail in [section 6](#). Also, incentives lend themselves to innovative ways of working, considering agile decision making and driving efficiencies. These are all strengths of our business and will ensure value for money service improvements for consumers. We set this out in more detail in [section 5](#).
- **Delivering improved outcomes for consumers:** In addition to the protection to customers, our proposal drives a clear rational decision about whether it is cost beneficial to deliver the improved service compared to the cost to deliver, aligning our interests (ENWL) and consumers. If it is not cost beneficial then it is in neither consumers' interests nor the companies to undertake the activity and the company will continue to deliver the performance or service level already realised. The penalty element ensures a payment back to customers is made should there be a deterioration in service. We set out this in more detail in [section 5](#).
- **Proportionality:** Having a bespoke discretionary incentive connected to a customer led proposal underlines our customer and stakeholder led plan. An incentive with no upfront allowances is proportionate to the activity, focusses effort and ringfences this activity around the incentive itself, ensuring that, where efficient to do so, service improvements to the level valued by consumers are delivered.

#### 4.6. Section summary

Having considered all the regulatory mechanisms available under the RIIO-ED2 regulatory framework our proposal is that this service improvement is best delivered and funded through a bespoke financial ODI (ODI-F). This is because the mechanism reflects the importance consumers place on the proposal, as directly measured through WTP, and because the proposal enables improved outcomes for consumers whilst encouraging value for money delivery. Finally, the use of an ODI-F is proportionate to the activity, focussing effort and ringfencing the activity around the incentive itself.



## 5. Delivery

In developing this proposal through extensive engagement with customers and stakeholders, and through working with our CEG, we have considered how we can deliver the improvements in service that are so strongly valued by consumers. We set out the activities/solutions we have considered in [section 5.1](#). These are then costed in [section 5.2](#), with the risks and project delivery considerations set out in [section 5.4](#).

It is important to note that there are significant interactions between sections 5.1, 5.2 and 5.4. Delivery options as well as delivery risks and costs are important to understand as they have the potential to impact on the Company's plans and the actual levels of service improvements received by customers in the period of realisation.

### 5.1. How we can achieve improvements in service

In developing this proposal, we established an internal project team consisting of colleagues from across the business including operations and finance backgrounds. This has allowed us to consider and develop a wide-ranging list of activities and delivery options.

These options have been broadly allocated into categories of; working practice improvements, use of data, physical works improvement (reinstatement) and increased resources. The activities set out in this section and subsequently costed in [section 5.2](#) should not be read as the final activities that will be delivered by us; it may be a subset of these or activities that are additional or different to those identified here. We will, in the period of RIIO-ED2, consider the best way of realising the proposed service improvements, considering the risks in actual delivery and remaining agile in determining how best to deliver against the requirements to maximise consumer benefit.

This is in the best interests of customers and stakeholders where the cost of delivery is constantly kept under review ensuring the most efficient means of delivery whilst providing the service improvements valued by consumers and stakeholders alike.

#### 5.1.1. Physical reinstatement work improvement

We are investigating the potential use of alternative methods of reinstatement as opposed to traditional tarmac. For clarity these will not reduce the quality of the reinstatement works undertaken and would still allow us to meet our other legislative and legal requirements such as those set out in the SROH<sup>13</sup>. All of these have been proven solutions in terms of quality and will allow us to complete reinstatement works faster but are generally more expensive than traditional tarmac.

One such example is

It has the potential to allow us to complete our reinstatement works much faster 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, but it could be viable under an enhanced service offering. There is significant initial capital outlay required for the specialised vehicles and associated plant and additional operator training

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<sup>13</sup> Specification of the reinstatement of openings in highways, Department for Transport, Last updated 14 May 2020.



requirements. Furthermore, the bagged reinstatement materials are considerably more expensive than the conventional bulk purchased reinstatement materials that we currently use.

Other examples include [REDACTED]

We are also investigating the use of [REDACTED] eliminates the need to bring in new reinstatement materials which can reduce works durations whilst also resulting in a higher quality reinstatement as well as reducing waste product.

### 5.1.2. End to end working practice improvements

We are continuing to review a number of alternative methods of working with the objective of reducing the duration of our street works through improvements in working practice. Examples of these delivery options include;

[REDACTED] Under this option the site can then be surveyed and all the relevant backfill and [REDACTED] reducing the delay between key information being obtained and relayed to reinstatement resources. The site information and data are crucial to the seamless reinstatement phase of the works and without it, incomplete or inadequate information can delay the process of reinstatement. Delivery of this could require the development of [REDACTED] plus the systems, processes and people resources to embed these changes. In a similar vein the full survey and reinstatement process could be [REDACTED] which also has been considered in the costing of this activity or delivery model.

### 5.1.3. Use of data

We have also considered how to best utilise data to drive real improvements in works' durations. It is possible to purchase or develop software that may allow us to pre-assess site data such as surface type and dimensions and existing infrastructure. This data would be accessible from a desktop and could substantially reduce the need for site surveys and delays in getting site information to our contractor partners. One solution we have explored is [REDACTED] which would allow us to better utilise data and desktop information remotely to deliver improvements in reinstatement duration.

[REDACTED] as an example can [REDACTED] This could provide vital information about the surface material and existing condition through desktop studies.

We are also investigating the potential [REDACTED] that we currently use. This would allow us to improve our tracking of fault jobs from end to end, at a project level, and could be shared with our contractor partners to facilitate more efficient job tracking and sharing of information and data. The

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<sup>14</sup> these are referred to as PCSM's or Permanent Cold Set Macadams as approved and permitted under both the SROH 3rd Edition and the 4th Edition.

implementation of this activity would require additional change management resource to embed as well as specialist IT and consultant resource to implement the [REDACTED]

#### 5.1.4. Increased resource

Whilst we have considered smarter working solutions, it is inevitable that as part of a full options analysis we have also had to consider what improvements can be achieved with increased resources such as additional personnel and/or additional plant and physical resources. We have set these out below:

We have considered [REDACTED]

[REDACTED] This additional operating resource would ensure that faults occurring

This will reduce the time between the fault being fixed and the backfill and reinstatement works instruction being issued to the contractor ultimately shortening the end to end process.

With regards to **additional vehicles and physical resources**, the purchase of additional vehicles, for example [REDACTED]

[REDACTED] At present clearance of sites can be delay while waiting

to become available. As with all plant equipment or heavy machinery the costs of these are high, whether these are purchased and owned by the company or procured on a leasing agreement, so they are intensively used. It should also be noted that these incur significant on-cost elements such as resources to operate, maintenance costs, licence for operating and physical site space for storage considerations.

There are also a number of changes in working practice that may require additional plant and machinery to shorten duration times in certain situations. For example; [REDACTED] and the subsequent use of [REDACTED] the use of Cable Avoidance Tools (CAT) and Genny technology will reduce durations as the spoil can be removed immediately. These methods of excavation also reduce the risk of damage to other utilities' assets which can be a significant cause of delay in reinstatement timescales. This will reduce reinstatement durations as where damage to third party utility assets occur we are not able to close and reinstate the works until this has been rectified. Reductions in these instances will benefit through reduced duration of works.

## 5.2. Estimated cost of delivery by activity

To calibrate this proposal and consider whether the activities set out in [section 5.1](#) are cost effective and efficient delivery activities we estimated the potential high-level costs of all the activities identified to deliver the service improvement. We set out the costs and the key assumptions we have made below in figure 5.1.

Figure 5.1: Estimated cost and delivery activity

Area	Activity	Key assumptions	Cost estimation (ED2 total)
Physical reinstatement work improvement	[Redacted]		
End-to-end working practice improvements			
Use of data			
Additional resources			
Additional vehicles and physical plant resource			
<b>Total (assuming all activities identified at this stage)</b>			<b>c.£27.5m</b>



### 5.3. Baseline costs

In [sections 5.1 and 5.2](#) above we have set out the potential activities and options that could be deployed in some combination to deliver the improvement in service which is valued by our customers and stakeholders.

For clarity and transparency none of the costs estimated above have been included in our business plan or in baseline expenditure set out in our business plan data template (BPDT). We have only included a base level of funding (subject to efficiency considerations) to deliver the same level of service as delivered in the RIIO-ED1 period. No additional funding has been included to deliver service improvements in the RIIO-ED2 period.

The activities set out in sections 5.1 and 5.2 are the incremental options that could be utilised to deliver the transformational service improvement and it is our proposal that these are remunerated through the ODI-F only where actual improvements are realised for consumers triggering an incentive reward.

### 5.4. Risks and project delivery considerations

There are a number of risks and significant delivery considerations that we have noted that will have an impact on service and delivery improvements in the ED2 period. These risks put increased timescale and cost pressures on delivering street works, and further reinforce why an ODI-F is required to deliver improvements.

To be clear these are not included in our view and calibration of target setting for this proposal as set out in [section 6.5](#), but this section sets out the additional challenges and delivery risks that the company faces in RIIO-ED2. These represent factors that are to a certain degree outside of management control in terms of whether they will materialise in RIIO-ED2. All represent a further headwind or challenge beyond RIIO-ED1 baseline performance that the company will need to manage in the period whilst still striving to deliver the stretching targets set out in this proposal.

The risks and delivery considerations we have currently identified are:

- Withdrawal of RPS211: Excavated waste from utilities installation and repair
- Changes to the length of guarantee for reinstatement (SROH)
- Lane rental scheme

We take each of these in turn below and set out the basis for which this will increase the delivery risk for the company and how this makes the service improvements targeted more challenging than if they were to be delivered under current operating circumstances.

#### 5.4.1. [Withdrawal of RPS211: Excavated waste from utilities installation and repair](#)

Regulatory position statement 211 (RPS) applies to businesses that deal with excavated waste from utilities unplanned installation and repair. This RPS only covers excavated waste produced by (or on behalf of) utility companies, such as ourselves, that are members of Street Works UK and:

- are from unplanned utilities installation and repair



- would be classified under certain European Waste Catalogue (EWC) codes<sup>15</sup>
- would not be classified as hazardous under the producer's company procedures
- are not known or reasonably suspected to be hazardous, for reasons including (but not limited to):
  - visible and olfactory presence of hydrocarbons and other chemicals
  - waste containing visible pieces of material that contain asbestos
  - asphalt (tarmac) road surfaces likely to contain coal tar – for example, those laid in the 1980s or before
  - waste from excavations on contaminated sites if previous site investigations identified hazardous waste

Currently if qualifying practitioners such as ENWL follow the conditions in this RPS there is no need to do a hazardous waste assessment for excavated wastes that are covered by this RPS.

It is almost certain that RPS211 will be withdrawn<sup>16</sup> and will not apply in the RIIO-ED2 period. Therefore, this change will have a significant impact on our operating practices considering the whole process of emergency street works duration.

When this RPS is withdrawn, all unassessed waste from utilities' excavations must be classified as hazardous. This includes any waste that has entered the waste management system or has been stockpiled (or both) under this RPS.

The impact of this will have both a cost impact for ENWL and also a duration impact. For example, it will increase the length of time taken for qualifying street works (of which the emergency street works as defined and set out in this proposal would apply) to be completed when compared to that in RIIO-ED1, all other things being equal. We will therefore have to make improvements from current operating processes in ED2 just to deliver the comparable level of service to that delivered in ED1. Further management focus will have to be focussed on RPS211 considerations as this is a legislative requirement. Hence there is a dimension of risk related to ensuring management focus across a number of drivers.

This further underlines that the target of improved performance/service provision in ED2 to the levels outlined in [section 6.5](#) are stretching where we will have to make significant improvements just to stand still in average performance terms.

#### 5.4.2. Changes to the length of guarantee for reinstatement (SROH)

The Specification of the Reinstatement of Openings in Highways (SROH) outlines the standards for reinstating streets after completing street works. The Department for Transport (DfT) issued the fourth version of these standards in May 2020 and this is the version that applies to practitioners such as ourselves and our operating partners.

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<sup>15</sup> 17 01 01 concrete, 17 01 02 bricks, 17 01 03 tiles and ceramics, 17 01 07 non-hazardous mixtures of concrete, bricks, tiles and ceramics, 17 03 02 non-hazardous bituminous mixtures, 17 05 04 soil and stones, and 17 09 04 non-hazardous mixed construction and demolition wastes

<sup>16</sup> Planned to be withdraw on 30 June 2022 - <https://www.gov.uk/government/publications/excavated-waste-from-utilities-installation-and-repair-rps-211/excavated-waste-from-utilities-installation-and-repair-rps-211>

Currently, the fourth edition of SROH requires a minimum guarantee period of reinstatement works of two years where “The guarantee period begins on completion of the permanent reinstatement and runs for two years in general, or three years in the case of deep openings.”<sup>17</sup>

We are already expecting that there will be a legislative change before ED2 or as a minimum in the ED2 period where the guarantee period for reinstatement will move from two years to five years, or longer. A change to the guarantee period is already being considered in Scotland as part of changes to the SROR<sup>18</sup> where the change would potentially be to a 6-year guarantee period.

Changes to the SROH guarantee period may not directly change our or our partners’ working practices as we already deliver reinstatement that are designed to last longer than the guarantee period in question. However, in practice, lengthening of the guarantee period will increase the risk for our business and our partners in this area. This is likely to mean additional time taken to ensure compliance and assurance with the requirements and potentially more defect work in future years because of the change in time period for the guarantee.

#### 5.4.3. Lane rental scheme

Lane rental schemes allow local highway authorities to charge utilities for the time that street and road works occupy the highway. Charges are focused on the very busiest streets at the busiest times. Charges apply to works undertaken by both utility companies and local highway authorities on the local road network. It should also be noted that we view lane rental and our bespoke proposal as being complementary and working together in the interests of our customers. The reinstatement incentive will drive us to reduce durations and will in turn reduce the amount of efficiently incurred costs we would require to be funded through the expected reopener covering lane rental costs in RIIO-ED2.

The power for local highway authorities to implement and operate a lane rental scheme in England is subject to approval by the Secretary of State for Transport.

A clear and significant impact of lane rental in terms of additional costs is the lane rental daily charges themselves, but there will also be additional areas of management challenge and associated costs such as;

- The impact on “non-lane rental” works; potentially lane rental schemes will require prioritisation increasing the administrative and works management burden as well as operating practices for the businesses.
- Operating challenges around the supply of materials for backfill and reinstatement out of hours
- Increased challenges and work required for up-front planning and design to facilitate lane rental schemes
- Amendments to permit IT systems to ensure there is clear visibility of lane rental streets as permits are created and issued
- The systems and resources required to validate and pay the invoices associated with lane rental charges

It is clear that with the introduction of lane rental in the period of RIIO-ED2 will place additional delivery risks for our business where we will have to change our operations and administration to

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<sup>17</sup> S1.2.2, Specification for the Reinstatement of Openings in Highways - Fourth edition, Department for Transport, May 2020

<sup>18</sup> Specification for the Reinstatement of Openings in Roads, Transport Scotland

comply with lane rental whilst potentially delivering improved service across all our emergency fault works covered by this incentive proposal.

## 5.5. Performance benchmarking

In developing this bespoke proposal, we have given serious consideration to our current and targeted performance/service levels and how this compares or benchmarks against other companies and sectors that perform similar or comparable services.

We have used data to, as closely as possible, robustly compare our detailed performance data with other data that is available. Data captured on an exactly matching basis isn't available currently, but reasonably robust comparisons can be made. The evidence shows that the levels being proposed and set as part of this company specific bespoke proposal are fair and are in a line with stretching targets of comparability based on the best available information.

To this end, we have utilised four different benchmarking approaches comprising of three different data sources.

We have set out below the data which we have utilised to ensure that the performance and service levels being targeted are stretching and represent a fair level for which the company can earn an incentive reward for achieving (for further information on the levels targeted and calibrated see [section 6](#) of this document). We have considered three areas of benchmarking to be appropriate namely;

- Comparison of performance or service levels within our region, considering other utilities comparable activities
- Benchmarking our performance to our peers in the electricity sector on a national level
- Considering how this compares to other utilities outside of electricity, also on a national level.
- And how we compare with regards to service failures to stakeholders in the form of highway authority penalties.

We set out the data under each one of these approaches in turn below.

### 5.5.1. Benchmarking - In region

Transport for Greater Manchester produces some performance data for the Greater Manchester Road Activity Permit Scheme (GMRAPS) covering a range of comparable activities which has been presented to the operational group of which we are a member.

This performance information covers local authority areas of Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan, representing a large portion of the south of our operating region which we have used as a representative sample for regional comparison purposes. Figure 5.2 below summarises what the report shows for comparable industries of gas [REDACTED] and water [REDACTED] based on the data<sup>19</sup> presented for 2020:

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<sup>19</sup> To ensure relevant comparison only 'emergency works' data has been used where available, as this was unavailable for [REDACTED] 'Urgent' work data has been used.



Figure 5.2: Regional benchmarking based on GMRAPS data

Duration days - Average (estimated)	Period - 2020 (estimated average)
ENWL	5.4 <sup>20</sup>
	8.9
	5.2

As figure 5.2 shows, when compared to [REDACTED] our current performance benchmarks well; our service is significantly better than [REDACTED] and on par with [REDACTED]. Comparing the forward view of service if this bespoke proposal is accepted it shows that 3 days (level 2 as tested with consumers) would be stretching for a DNO and other utilities operating in our region.

#### 5.5.2. Benchmarking – Electricity and other utilities nationally

In establishing a benchmark for performance for our peers in electricity we have utilised Street Works UK data. We have, using the latest published data from 2019, compared performance for the electricity sector as a whole with our average performance across ED1 and noting the date of the data our performance in 2019. This is presented below in figure 5.3.

Figure 5.3: Average duration of street works, based on Street Works UK (SWUK) data

	Duration days - Average
ENWL	5.4 <sup>23</sup>
Electricity (all job types)	7.8 <sup>24</sup>
Immediate only	6.0

The most appropriate comparison between our proposal and this SWUK data is the ‘immediate’<sup>25</sup> jobs. On this basis our average duration across ED1 is better than that provided in the SWUK data. Based on the evidence to date, our summary is that our current performance is at a similar level to our peers in the electricity sector and is better than gas distribution companies.

We have also used the data to gain further insight to the calibration of our proposed targeted performance levels at Level 1 (4 days) and Level 2 (3 days) as tested with customers. We have determined that these levels are stretching where we observe that, for the electricity sector, these levels would be significantly better than those observed on a sector average basis. From delivering this work we know that finding the fault itself, completing the repair and putting the highway back within these timescales will be a transformational change, almost halving the timescales from our RIIO-ED1 performance to date.

<sup>20</sup> For equivalent period of financial year 2019-20

<sup>21</sup> Based on Emergency works data

<sup>22</sup> Based on Urgency works data

<sup>23</sup> For equivalent period of financial year 2018-19

<sup>24</sup> Unweighted average of all sub-categories; immediate, major, standard, and minor

<sup>25</sup> Major, minor and standard works are all planned works, with durations of 11 or more working days (major), 4 to 10 days (standard) and 3 days or less (minor). For electricity, immediate works are essentially fault works where immediate action is needed either to prevent danger to people or property or to prevent a loss or restore a supply or service.



Further to this summary conclusion we have also considered how the other sectors' benchmark data from the SWUK report can be used to inform, calibrate and sense check our proposals. The figure 5.4 below presents the average durations from other sectors from the SWUK data and an estimated overall average for all sectors analysed. We have concluded, based on this information, that our proposed targets are appropriate and stretching when considering the performance of the most comparable sector to ours (gas distribution). The SWUK evidence shows that electricity already provides a much better level of service than our peers in gas on a national basis and, as previously stated, our performance is comparable if not better than that of electricity on a national basis.

Figure 5.4: Average duration of street works, based on SWUK data comparable works data

	Duration days - Average
ENWL	5.4 <sup>26</sup>
Electricity (all job types)	7.8 <sup>27</sup>
Immediate only	6.0
Gas (all job types)	14.3 <sup>28</sup>
Immediate only	13.0

### 5.5.3. Penalty and fines benchmarking

In addition to our performance benchmarking on service we have also considered how we compare with other DNOs/companies on penalties and charges associated with street works. We have considered this to ensure that we are providing good all-round service to all stakeholders and customers especially where this proposal is looking to provide enhanced service. In short, we wanted to check we are doing the basics well.

As previously noted, 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 street works permit; Fixed Penalty Notices (FPNs) and NRSWA Section 74 charges.

On average we issue around 8,500 street works permits a year of which our activities covered by this incentive represent a majority of these permits. Our FPN rate for 2019/20 was [redacted] of permits issued, with fines amounting to £[redacted]. Our Section 74 penalty rate was [redacted] of permits in 2019/20 ([redacted] fines) (compared to an industry average of 2% as reported in the SWUK 2018) with costs amounting to [redacted].

The last 4 years has seen a year on year reduction in the percentage of both FPNs and Section 74 notices received, primarily due to the ENWL 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 of the individual permit schemes. There has been specific and focused training provided in advance of the "go live" of each North West permit scheme and we undertake a programme of site inspections to internally measure permit compliance and to identify areas of FPN risk.

### 5.5.4. Benchmarking – Summary and conclusion

We have undertaken a thorough assessment of service benchmarking based on the best comparable data available providing assurance to stakeholders that our proposal is robust and challenging. We

<sup>26</sup> For equivalent period of financial year 2018-19

<sup>27</sup> Unweighted average of all sub-categories; immediate, major, standard, and minor

<sup>28</sup> Unweighted average of all sub-categories; immediate, major, standard, and minor

concluded that it is fair for this assessment to be used to understand at a macro-level of detail whether the calibration of the current performance, as well as the targeted performance, is fair and proportionate to a bespoke ODI-F in RIIO-ED2. We have presented this assessment to our CEG and discussed how our current service benchmarks against the comparable data above.

Based on the three benchmarking methods set out and the two data sets utilised we have used the data to inform our development of this proposal. The benchmarking data informs our proposal in two ways:

1. That our current performance, at circa 5 days average duration, is significantly better than the gas sector and conservatively in line with the electricity sector and other comparable utility sector performance across the period. This applies on both a national and regional operating basis.
2. That the targeted improvement in service at levels 1 (4 days) and 2 (3 days) as tested with customers through our enhanced stakeholder engagement represent a stretching target that could potentially be achievable, but which will be challenging to achieve in the period of RIIO-ED2. Other energy network companies do not achieve the levels of performance we could set as our ambition for RIIO-ED2.

Further work continues to seek to identify additional benchmarking information. An additional aspect of our proposal includes us producing a transparent report into our performance to help stimulate national benefits being delivered by other DNOs/GDNs and potentially wider. This is set out in further detail in [section 6.7](#).

## 5.6. Section summary

We estimate that the incremental costs necessary to fund improvements in service are material, and because of the challenge of forecasting these, given the transformational nature of the improvements being targeted, consider they are best funded and incentivised through a bespoke ODI-F. Because of this we have explicitly excluded any incremental costs of delivering the service improvements in this proposal from our baseline cost proposals.

Additionally, we have identified a number of risks and significant delivery considerations that will have an impact on service and delivery improvements in the ED2 period if they are realised. These risks put increased timescale and cost pressures on delivering street works, and further reinforce why an ODI-F is required to deliver improvements as cost pressures will be even greater in RIIO-ED2.

Also, having benchmarked our current performance at circa 5 days average duration against our peers and other comparable sectors our performance is significantly better against some benchmarks and conservatively, at worst, in line over the period. This applies on both a national and regional operating basis. This means that the targeted improvement in service at levels 1 (4 days) and 2 (3 days), as tested with customers, represents a stretching target that could potentially be achievable, but which will be challenging to achieve in the period of RIIO-ED2.



## 6. Customer and stakeholder led proposal design details

In this section we set out our proposal in detail outlining the key information and specifics on how the bespoke ODI-F would be defined, reported and incentivised based on, and considering the input and feedback we have had from, customers and stakeholders as set out in [section 2](#).

A key aspect of this section is how we have utilised the mechanics of incentive design to protect customers, which was a central part of our discussion with our CEG. The section sets out our proposal details in the following order:

Section	Area	Description
6.1	<b>Incentive type and form</b>	Clarifies our proposal and provides links to the sections of this document where the supporting evidence can be found.
6.2	<b>Definition</b>	How we propose to define the bespoke ODI-F.
6.3	<b>Exclusion</b>	Clearly sets out what is excluded from the incentive, including transparent justification as to why these elements are not included.
6.4	<b>Reporting</b>	Sets out the frequency, measurement detail and assurance of the how, where and when performance will be reported.
6.5	<b>Targets and incentive mechanism design including customer protection mechanisms</b>	Sets out the targets which we will be looking to achieve based, on the evidence we have. We also set out how we intend to use incentive design mechanisms to protect customers and ensure a fair balance of incentive reward/penalty.
6.6	<b>Incentive rate</b>	Set out the options we have considered and how these have been calculated, as well as the cross checks we have performed to consider what the right level of reward/penalty rate should be.
6.7	<b>Other commitments</b>	Sets out the other commitments we propose to ensure that the full benefit of the proposal can be realised for customers and stakeholders alike.

### 6.1. Incentive form and type

We are proposing that this incentive is in the form of a bespoke financial outcome delivery incentive (ODI-F), where there is a financial reward or penalty. This is to apply annually on a revenue basis and to be enacted as part of the annual iteration process (AIP). We are clear that we do not consider that other regulatory mechanisms are appropriate for this proposal and we set out our justification and considerations of the other areas in [section 4](#).

To support this proposal, we have provided detail behind the calibration of the incentive rate and what has been considered in developing the proposed rate in [section 6.6](#).

We have provided a draft licence condition to provide additional clarity to stakeholders, including Ofgem, around how our proposal could be implemented. This can be found in [section 8](#).

## 6.2. Definition

In establishing the definition of this bespoke ODI-F proposal we have sought to make it as precise, concise and transparent as possible, providing clarity on what it covers in an easily digestible and understandable form. In short, the aim of the definition is to quickly articulate what ODI-F covers.

The definition is:

***“The average duration of Electricity North Wests unplanned emergency fault street works in network days as measured from the time of the site opening until the works are completed. This includes the full period of disruption for a single job covering both the work to find and fix the fault, as well as the time taken to reinstate and clear the works.”***

We recognise that this may not articulate all the nuances of the proposal although we are clear and transparent in [section 6.3](#) about what the incentive does and does not cover, namely the limited exclusions. This section includes detailed justification as to why these activities have not been included in the count of the average duration and also will not count towards the service improvement in the RIIO-ED2 period.

## 6.3. Exclusions

In considering what is excluded from the data and the performance metrics we started from a principled view that all activities should be included. We have therefore sought to minimise the number of exclusions. We understand that exclusions should be limited and that these need to be justified thus underpinning the transparency and legitimacy of the ODI-F proposal. Ultimately this will ensure consumers are receiving performance/service improvements that they value.

In considering, and justifying, what the exclusions are for this proposal we have considered the following criteria:

- Do the works cover priority areas for customers where we can make improvements that should be incentivised by the ODI-F?
- Would the inclusion of the works create perverse incentives that would undermine the consumer interest?
- Can we measure and robustly evidence both in historic data and future data, so we still have robust metrics?

Based on these criteria the incentive proposals explicitly exclude the items listed below. We have provided the rationale as to why they have been excluded from our proposal which extends to both the in-period performance assessment as well as the baseline numbers provided in this document. The exclusions are:

- Any duplicate works orders that are for the very limited numbers of remedial works, i.e. works to make temporary reinstatements permanent or to correct reinstatement defects.



**Defects:** We have removed any duplicate street works orders associated with the remediation of defects. These come at additional cost to the company and its partners, as such we are incentivised to avoid defects already. In short, we do not aim to have defects nor would we in future to ensure the average duration is lowered, in any move to sacrifice quality for achieving speed. We consider these to not have undermined the actual level of service we deliver as these account for less than 458 jobs annually on average, representing 8% of total street works jobs undertaken in RIIO-ED1.

**Temporary reinstatement:** Temporary reinstatement works are only deployed where there are circumstances that mean a permanent reinstatement can't be undertaken immediately, for example where specialist materials or surfaces are required to complete the works permanently. In this example a temporary reinstatement allows the site to be closed and the disruption removed whilst materials required to complete works permanently are sourced. Frequently these have long lead times outside of the company's control. Additionally, the company is incentivised to avoid the use of temporary reinstatement wherever possible due to the substantial additional cost of closing and reopening sites to permanently reinstate under our Totex allowances. We consider these to not undermine the actual level of service customers receive as these account for less than 225 jobs annually, representing 4% of total street works jobs undertaken in ED1, and we will continue to monitor and report the number sites closed as temporary reinstatement jobs throughout RIIO-ED2 to ensure that this does not increase in the period. It is for these reasons that duplicate works orders for temporary to permanent reinstatement have been removed from the data and the average duration calculation.

- Other areas:

**Private street works:** We have excluded works that occur on private land. These represent works not covered by the street works permit and do not incur disruption to the public as those undertaken on public highways. These have therefore been excluded from the incentive and the average duration calculation.

**Extra High Voltage (EHV) faults:** For completeness we have excluded EHV jobs from this proposal where the works are complex due the nature of the assets involved.

For the avoidance of doubt, and the spirit of complete transparency, all planned work is also excluded as stated in the definition of the bespoke incentive proposal. We provide additional detail defining this in [appendix 9.4](#) to this document.

## 6.4. Reporting

We propose to report on our performance annually, based on financial years, and that the data will be provided as part of the standard annual reporting process. It is further proposed that incentive reward is included as part of the annual iteration process and as such would apply annually with five periods applying for RIIO-ED2. All reporting would be covered by the NETDAR and DAG process to the same extent as other regulatory data and information reported as part the annual reporting process.

The measurement will be the arithmetic mean duration of street works, not including those covered by the limited and well-defined exclusions, where the period is defined by financial year (i.e. 1<sup>st</sup> April to 31<sup>st</sup> March the following year). The duration of individual street works is defined by the site opening, i.e. barriers being erected causing disruption, to site closure where all barriers are removed, as recorded on our reporting system, Symology.

The average duration counts working days (network days) to align with how street work permit durations are counted (i.e. excluding Sundays and bank holidays).

The data will be provided in working days averaged across all qualifying street works across all areas in our operating region.

Where a job crosses financial years, it will be attributed to that year in which it was opened (e.g. if a job runs from 31<sup>st</sup> March 2021 to 5<sup>th</sup> April 2021 it will count towards the average performance in FY 2020/21 and not 2021/22).

The duration measurement is proposed to be to one decimal place where figures are rounded under normal mathematical rounding rules.

### 6.5. Targets and incentive mechanism design, including customer protection mechanisms

We have as part of our proposal carefully considered the targets and potential incentive design mechanisms which can ensure fairness and the appropriate balance for consumers and stakeholders. As set out [section 6.1](#) above the proposal is for this to be a symmetrically applied reward and penalty ODI-F.

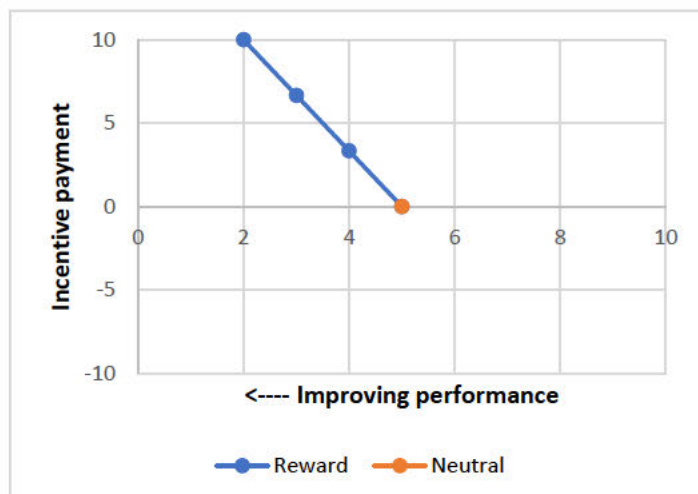
Below we have set out the mechanisms we have considered and how these could apply in the design of this incentive mechanism.

#### 6.5.1. Upside and/or Downside mechanism

Ultimately incentives can be designed to be upside only (reward), downside only (penalty) or a mixture of both. We have considered all of these as part of the design of this bespoke proposal and below we set out our considerations under each option;

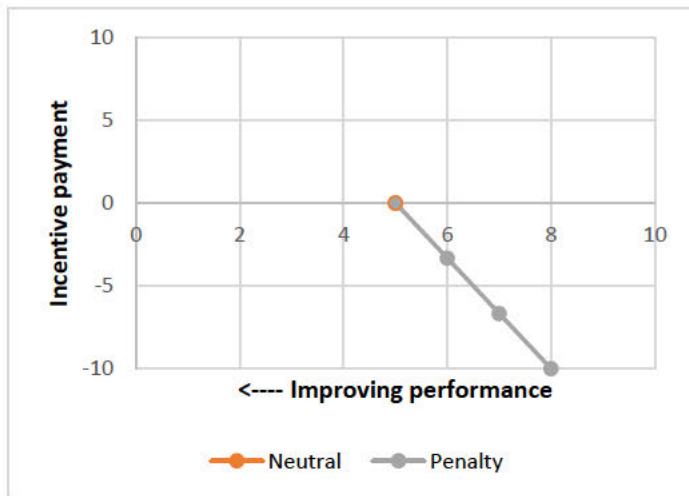
- **Upside (Reward) only;** An upside only incentive provides an incentive for the company to target enhanced service improvements but does not incentivise the company to ensure that there is no service deterioration in a situation where the service becomes a lower priority in delivery period. These are usually best deployed where there is a regulatory backstop mechanism that protects from performance deterioration such as a LO setting a minimum guaranteed standard. This is shown in figure 6.1 below.

Figure 6.1: Stylised representation of simple incentive mechanism – Upside (reward) only



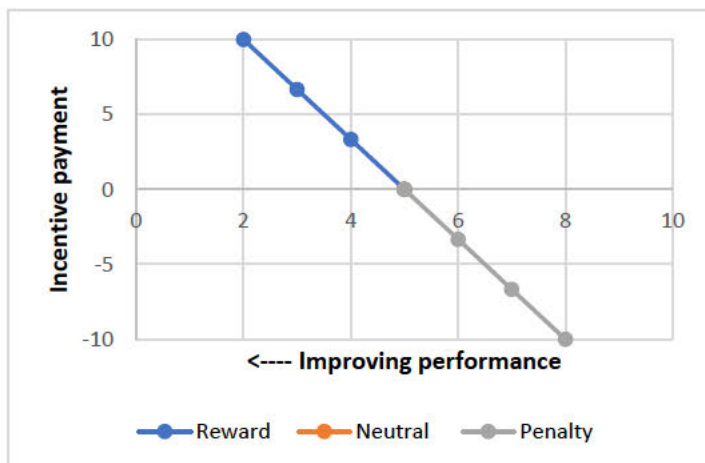
- Downside (penalty) only;** A downside only incentive would only incentivise a company to avoid service deterioration. In a scenario where an enhanced service from that currently provided was valued by consumers and stakeholders, additional baseline funding would be required to reach these levels and penalties levied against failure to deliver that level with additional baseline funding. If no additional baseline funding is provided for then the penalty would need to apply from current performance and would not incentivise companies to deliver improved service. These are best deployed where improvements in service are unlikely or where customers say they are already satisfied with performance and don't want improvements, possibly because companies are at the frontier of what is achievable, but where a mechanism is required to ensure no deterioration in service occurs. This is shown in figure 6.2 below.

Figure 6.2: Stylised representation of simple incentive mechanism – Downside (penalty) only



- Upside (reward) and downside (penalty);** An upside and downside incentive, if equally calibrated, ensures that companies have an equal incentive to improve service as to ensure that no service deterioration occurs. These are best deployed where the cost of delivery is uncertain and where no additional funding is requested or allowed for in baseline allowances. This is shown in figure 6.3 below.

Figure 6.3: Stylised representation of simple incentive mechanism – Upside (reward) and downside (penalty)

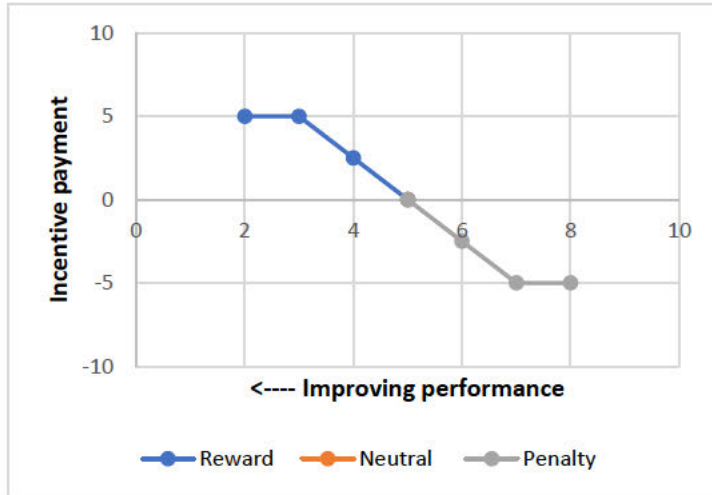




### 6.5.2. Use of 'Caps' and 'Collars'

Caps and collars are mechanisms that can be used to protect customers from the absolute level of reward/penalty incurred in a single year<sup>29</sup>. How caps and collars work in a stylised form is set out in figure 6.4. We consider that this is appropriate in this proposal where we have tested with customers at defined levels around a forecast baseline level of service of 5.1 days.

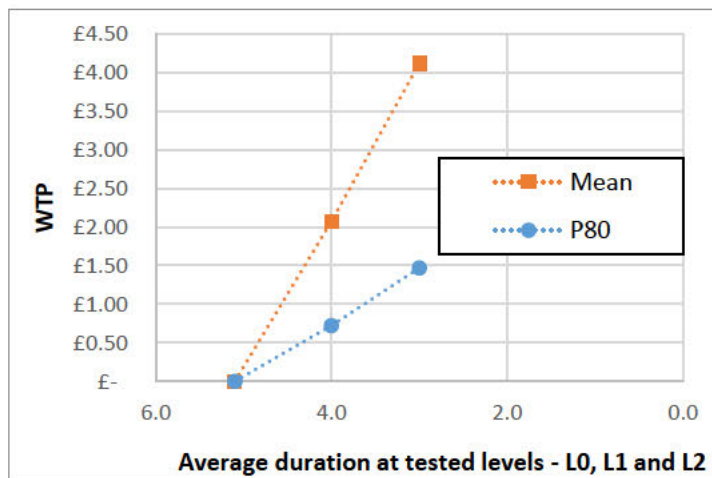
Figure 6.4: Representation incentive mechanism with Cap and Collars



When we tested this service level with our customers as part of our willingness to pay exercise we included to reference levels as 4 (level 1, L1) and 3 days (level 2, L2) respectively. The testing of these levels was done where we provided a reference level of average performance for testing which was 5.1 days<sup>30</sup> (level 0, L0).

More details of the results of this testing exercise are set out in [section 2](#), but in summary the results of testing saw little diminishing returns from consumers' valuations between the levels provided, i.e. L0, L1 and L2. We show this diagrammatically in figure 6.4.

Figure 6.5: Willingness to pay (WTP) values by levels 0, 1 and 2



<sup>29</sup> Where the incentive is per annum as is proposed in this proposal

<sup>30</sup> This was the forecast outturn position for 20/21, actual outturn was 5.2 days



Given that we have not observed any diminishing WTP at the levels tested and based on the response we have received to acceptability testing, we consider that a cap should be placed at 3 days duration which is also likely to be a natural frontier performance barrier to what is achievable given the activities which are being undertaken.

The cap proposed would mean that we would maximise our incentive payment at the level of 3 days. Any subsequent performance improvement who not provide additional incentive payment.

Given that the proposal is that the incentive will be a reward and penalty ODI-F, we propose the collar or maximum penalty be set on a symmetrical basis to the baseline target of 5.1, i.e. the same difference between this and 3 days, therefore the proposed collar is 7.2 days.

### 6.5.3. Dead bands

In assessing the best way to design the mechanism and ensure fairness to all parties we have considered the use of dead bands in our proposal.

Dead bands are levels of performance improvement around the baseline/balance point level where upside or downside is not incurred. I.e. the company would have to achieve better than these levels before the mechanism would start. A diagram showing a representation of how dead bands work is set out in figure 6.6.

Figure 6.5: Representation of incentive mechanism with dead bands



It is these characteristics that mean dead bands can be used to protect companies from natural variations in service, and/or those driven by legislative changes that are outside of management control such as those set out in [section 5.4](#). Additionally, they can afford protection to consumers from the same natural year-on-year variations in performance.

However, the inclusion of dead bands weakens the incentive properties, where the company must make improvements at zero reward when moving through the dead band. Equally it weakens the incentive of companies to actively manage the impact of activities outside of its control where a penalty won't be incurred if service lands within the downside dead band.

Considering this and the requirement on the incentive to both protect customers and deliver service improvements valued by our consumers and stakeholders, the proposal is therefore to have no dead band, meaning that the reward or penalty rate would start to be incurred from the baseline target of 5.1 days.

#### 6.5.4. Target setting

We have set out in [section 5](#) the activities and risks we have considered in delivering the enhanced levels of service valued by our consumers and stakeholders. The delivery of the service improvement is clearly challenging and uncertain given the transformational nature of the levels being proposed but also due to the significant delivery risks which are outside of management control and will need to be actively managed and controlled during period.

Further to this, it is clear that this service performance improvement is heavily operational cost (opex) focussed. There are limited capital (capex) options available where the activity will be a one-off cost that delivers enduring or long run benefit to service. It is the case that all 'smart' solutions in terms of ways of working will be considered.

We are also clear that none of the costs outlined in this document have been included in our baseline allowances. All the costs associated with the incentive delivery are proposed to be covered through the incentive reward mechanism. For clarity, the typical costs of maintaining the RIIO-ED1 service levels have been included but none of the enhanced levels of cost required to achieve the transformational levels of service targeted.

Therefore, in terms of target setting we are proposing that the baseline target performance is performance beyond 5.1 days where the reward caps at 3 days with this being a fixed target for the whole of the RIIO-ED2 period.

#### 6.5.5. Proposal summary

Having considered the design parameters set out in [section 6.5](#) and how these best deliver the service improvements valued by our consumers and stakeholders, we are proposing that the following applies in the case of our bespoke street works incentive:

Design parameter	Proposal	Level
Reward and/or Penalty	Symmetrical upside and downside	N/a
Caps and Collars	Symmetrical cap and collar	Cap – 3 days, Collar - 7.1 days
Dead bands	No dead band	+/- 0.0 days
Baseline Target	Fixed for the RIIO-ED2 period	5.1 days

### 6.6. Incentive rate

In this section we set out our proposed incentive rate, how we have calculated this, and the cross checks we have undertaken to ensure that the rate is representative of the improvements being targeted.

#### 6.6.1. Methods considered

Broadly speaking there are two approaches to setting incentive rates for ODI-F. These are based on; the benefit that occurs as consequence of the service or performance improvement (a benefit-based approach) or the cost of delivering service improvement (a cost-based approach). We set these out in more detail below:

**Benefit-based approach:** Simply put equating the incentive to the economic value of the benefit arising from the performance level in each area. On a benefit-based approach we have considered:



1. **Willingness to Pay (WTP)** – Utilising primary research from our enhanced customer and stakeholder engagement programme undertaken to inform and shape this business plan. Known as a stated preference valuation.
2. **Social or societal proxy** – Secondary data utilising proxy impact values from other researched or published values. We have utilised the Department for Transport impact of street works numbers under this approach. This is sometimes known as a revealed preference valuation.

**Cost-based approach:** Calibrating the incentive rate considering the cost of delivering the performance improvement. We have, under this type of approach considered:

3. **Cost to achieve plus margin** - Equating the incentive rate to the delivery costs plus a margin to incentivise the delivery of the performance improvement.

We have considered both benefit-based approaches in calibrating the incentive rate and set out the methods we have considered under each of the two approaches below in section 6.6.2.

It should be noted that we do not propose a cost-based approach. As discussed in [section 5](#), because of the transformative change being targeted the costs and service improvements by activity are uncertain. The degree of confidence or forecastability of cost is not sufficient to use the cost estimations in the setting of the incentive rate for this proposal and we should be incentivised to minimise the costs to achieve in delivering the levels of performance valued by customers and stakeholders. We therefore don't feel that a cost-based approach is appropriate.

#### 6.6.2. Incentive rates considered

We have assessed basing the incentive rate on a benefit-based approach specifically using the customer willingness to pay (WTP) data elicited from primary research undertaken as part of our business plan development, a summary of which is provided in figure 6.6.

Figure 6.6: Acceptability threshold WTP results (80<sup>th</sup> percentile)

80 <sup>th</sup> percentile – to align with acceptability testing threshold			
Level	Reduce Duration of Emergency Street works	Household	Business
Current level	Emergency roadworks average 5.1 days to complete emergency repairs, resurface and clear the site		
Level 1	Emergency roadworks average 4 days to complete repairs, resurface and clear the site	£0.72 <i>Ranked 2<sup>nd</sup></i>	0.05% <i>Ranked 5<sup>th</sup></i>
Level 2	Emergency roadworks average 3 days to complete repairs, resurface and clear the site	£1.47 <i>Ranked 1<sup>st</sup></i>	0.24% <i>Ranked 1<sup>st</sup></i>

To convert this WTP value rendered from the primary customer and stakeholder research into an incentive rate we have undertaken the following stages;

##### 6.6.2.1. Conversion to revenue impact using the domestic WTP bill impact

£0.72 and £1.47 represents the additional value a domestic customer is willing to pay on the distribution element of their existing bill for improved service levels at 4 and 3 days average duration,

based on 80th percentile acceptability threshold. To convert this to a pounds million equivalent to ENWL in revenue terms, the conversion we have based assuming the entire WTP bill impact being attributed to the incentive revenue. We have calculated the incentive revenue impact based on:

$$Cf = Bdom/MPANS$$

Where:

Cf

is the conversion factor for incentive revenue and bill impact

Bdom

Is the percentage of the total bill paid by domestic customers

MPANS

Is the forecast MPANS in the year used in millions

This renders a conversion factor of approximately 19p (0.19) per million pounds of incentive revenue using Bdom and MPANS averages from FY23.

$$£0.19 = 44.30\%/2.325m$$

Using this conversion factor, we then calculate the revenue impact based on using the following formula:

$$R = WTP_{lx}/Cf$$

Where:

R

Is the ENWL revenue in pounds million (£m)

WTP<sub>lx</sub>

Is the willingness to pay value at the level tested denoted by the lx.

Using this formula, the total incentive revenue impact based on the WTP data is:

$$\text{Level 1 (4 days): } £3.78m = £0.72/£0.19$$

$$\text{Level 2 (3 days): } £7.72m = £1.47/£0.19$$

Because the WTP exercise was tested against a baseline level of performance of 5.1 days we have assumed that this is level 0 and expressed by a WTP of £0.00 i.e. customers would not be willing to pay any more than they currently do to experience the same level of performance in RIIO-ED2 period.



As set out in [section 6.5](#) these levels observe minimal diminishing WTP at the levels tested and so the conclusion based on WTP and using the level 2 from level 0 is that the incentive rate on this method be set at £3.67m per day reduction before TIM adjustment. This is based on the following calculation:

$$IR = \frac{R}{(P_{10} - P_{12})}$$

Where:

- IR  
Is the unadjusted incentive rate
- R  
Is the ENWL revenue in pounds million (£m)
- P<sub>10</sub>  
Is the performance at the level 0 tested.
- P<sub>12</sub>  
Is the performance at the level 2 tested.

$$£3.67m = \frac{£7.72m}{2.1}$$

The incentive rate adjusted for TIM would be £3.67m multiplied by the TIM rate, assuming a 50%<sup>31</sup> TIM:

$$AIR = £3.67m \times TIM$$

Where:

- AIR  
Is the TIM adjusted incentive rate
- TIM  
Is the totex incentive mechanism sharing rate (assumed at 50% at this stage)

$$£1.84m = £3.67m \times 0.5$$

Therefore, the adjusted incentive rate for domestic customers only would be £1.84m per average day reduction.

#### 6.6.2.2. Conversion to revenue impact using the business WTP bill impact:

Section 6.6.2.1 only represents part of the WTP. To establish a complete picture and ensure a correct incentive rate proposal then business customer WTP also needs to be included.

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<sup>31</sup> This assumption will ultimately need updating to reflect the TIM agreed as part of the determinations of business plans or later

0.05% and 0.24% represents the increase a non-domestic customer is willing to pay additional to the distribution element of their existing bill for improved service levels at 4 and 3 days average duration, based on 80th percentile acceptability threshold.

To convert this to a pounds million equivalent to ENWL in revenue terms, the conversion used assumes that the average revenue per non-domestic is a one to one relationship with revenue increases. Therefore, using the average revenue per non-domestic customer, we have calculated the incentive revenue impact based on:

The revenue impact for ENWL is calculated using the following formula:

$$R = Bus_n (ABus \times WTP_{lx})$$

Where:

R

Is the ENWL total incentive revenue impact per annum in pounds million (£m)

Bus<sub>n</sub>

Is the total number of non-domestic (business customers) ENWL distribute to

ABUS

Is the average revenue per non-domestic customers (assuming a 1 to 1 relationship between bill increase and revenue)

WTP<sub>lx</sub>

Is the willingness to pay value at the level tested denoted by the lx.

Using this the total revenue impact is based on total non-domestic customer numbers is:

$$\mathbf{£0.51m} = 180,729 \times (\mathbf{£1,173.21} \times 0.24\%)$$

As the WTP exercise was tested against a baseline level of performance of 5.1 days we have assumed that this is level 0 and expressed by a WTP of £0.00, we use the increment between level 0 and level 2 (5.1 days to 3 days, change of 2.1 days) to establish an unadjusted incentive rate per day improvement:

This is based on the following calculation:

$$IR = \frac{R}{(P_{l0} - P_{l2})}$$

Where:

IR

Is the unadjusted incentive rate per average day improvement per annum

R

Is the ENWL revenue in pounds million (£m)

P<sub>10</sub>

Is the performance at the level 0 tested.

P<sub>12</sub>

Is the performance at the level 2 tested.

$$\mathbf{£0.24m} = \frac{\mathbf{£0.51m}}{2.1}$$

The incentive rate adjusted for TIM would be £0.24m is multiplied by the TIM rate, assuming a 50%<sup>32</sup> TIM:

$$\mathbf{AIR} = \mathbf{£0.24m} \times \mathbf{TIM}$$

Where:

AIR

Is the TIM adjusted incentive rate

TIM

Is the Totex incentive mechanism sharing rate (assumed at 50% at this stage)

$$\mathbf{£0.12m} = \mathbf{£0.24m} \times 0.5$$

Therefore, the adjusted incentive rate for non-domestic customers only would be £0.12m per average day reduction (TIM adjusted incentive rate per average day improvement per annum).

#### 6.6.2.3. [Combining business and non-business incentive rates](#)

For clarity the incentive rates in 6.6.2.1 and 6.6.2.2 can't be taken in isolation. To complete the calculation of what the incentive rate should be based on WTP the domestic and non-domestic customer incentive rates need combining, by simply adding the two incentive rates together.

This renders an incentive rate of £1.96m per average day reduction overall (TIM adjusted incentive rate per average day improvement per annum).

#### 6.6.3. [Social Proxy](#)

We have considered how the incentive rate could be set using a social proxy. For this we have utilised the values and sources set out in the figure 6.7 below.

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<sup>32</sup> This assumption will ultimately need updating to reflect the TIM agreed as part of the determinations of business plans or later



Figure 6.7: Social proxy calculation and source table

Social impact of individual job per day	Value	Source
1 Value of time (£ per hour) (2020 PB) - average across all vehicle types already includes adjusted for occupancy rate	£15.92	Traffic count data - (Source: <a href="https://roadtraffic.dft.gov.uk/regions/5">https://roadtraffic.dft.gov.uk/regions/5</a> ) and (Source: <a href="https://www.gov.uk/government/statistical-data-sets/road-length-statistics-rdl#table-rdl0101">https://www.gov.uk/government/statistical-data-sets/road-length-statistics-rdl#table-rdl0101</a> )
2 Average disruption to journey (3 min per hour, 1/20 <sup>th</sup> )	0.05	Assumption
3 Social value per job per vehicle (£/Job/vehicle)	£0.80	Calculation
4 Average Number of vehicles disrupted per day per job	4,558	Number of vehicles affected per day (Source: <a href="https://www.gov.uk/government/statistical-data-sets/road-length-statistics-rdl#table-rdl0101">https://www.gov.uk/government/statistical-data-sets/road-length-statistics-rdl#table-rdl0101</a> ) and (Source: <a href="https://roadtraffic.dft.gov.uk/regions/5">https://roadtraffic.dft.gov.uk/regions/5</a> )
5 Total social cost of disruption (£m/Job/day)	£0.004m	Calculation
Total social impact of all works per day	Value	Source
6 Average number of jobs per year	5,880	ENWL
7 Total social cost (1 days) (£m/day)	£21.33m	Calculation
8 with TIM adjustment (50%)	£10.67m	Calculation
<b>Social proxy Incentive rate (£m per day) (revealed preference)</b>	<b><u>£10.67m</u></b>	

The calculation steps based on the table references in the left-hand column are:

- Line 1 x line 2 = Line 3
- (Line 3 x Line 4)/ 1,000,000 = Line 5
- Line 5 x Line 6 = Line 7
- Line 7 x 0.5 = Incentive rate

Simply put the incentive rate on this method is assessed as £10.38m per day reduction after TIM adjustment.

#### 6.6.4. Incentive rate cross check

To cross check the incentive rate proposed we have compared the magnitude of the incentive to other bespoke incentive rates agreed as part of the RIIO-2 framework. For RIIO-GD2 Cadent and SGN have a bespoke incentive covering collaborative street works projects. Whilst this is not directly a like for like comparison, as a macro cross check, it would seem the incentive rate of ours based on £624 per job per day's reduction<sup>33</sup> is fair compared to £305k per collaborative job undertaken for the collaborative street works incentive.

#### 6.6.5. Summary of incentive rates and proposal

Figure 6.8 summarises the incentive rates which we have developed based on the two broad approaches we have considered for this proposal. All the rates in the figure are on the same basis which is a £m per average day reduction per annum.

We are proposing that the fairest and most appropriate method by which to set the incentive rate for this proposal is based on our primary willingness to pay research which renders an incentive rate of £1.96m per average day reduction when taking into consideration the views of all our customers (domestic and non-domestic). For ease of reference this is highlighted in green in figure 6.8.

Figure 6.8: Incentive rate summary and proposal

Method	Approach	Incentive rate	Comments
Benefit based approach	WTP	£1.96m	<b>Proposed incentive rate</b>
	Social proxy	£10.67m	Whilst we consider this to be a robust estimate of the social impact and the additional benefit that will occur from reductions in duration, the value rendered from the assessment is clearly of a level which is too large to use as a sensible incentive rate for reward and penalty purposes.
Cost based approach	Cost plus margin	N/a	We do not propose a cost-based approach because the costs and service improvement by activity is uncertain because of the transformative change being targeted.  The degree of confidence or forecastability of cost is not sufficient to use the cost estimations in the setting of the incentive rate for this proposal. Also, we should be incentivised to minimise the costs to achieve in delivering the levels of performance valued by customers and stakeholders.

We have also provided as supporting spreadsheet our incentive proposal model which sets this out in excel and which also allows for scenario testing.

<sup>33</sup> Calculated as; (£3.67m/ 5,880 jobs) \* 1,000,000

## 6.7. Social return on investment assessment

For our final business plan submission we have commissioned economics consultancy, Economic Insight (EI) to support us in the assessment of the societal benefits of our plan and its commitments. Benefit values were forecasted following detailed discussions with relevant stakeholders to gain an understanding of the projects aims and the changes caused. The assessment that EI have undertaken uses the common framework that has been agreed amongst DNOs and developed by SIA and Partners for quantifying the Social Return on Investment (SROI) of business plan commitments/propositions.

As part of this wider assessment of our final business plan we included an assessment of our 'Dig, fix and go: Our emergency work commitment' the details of which are set out in this document. The SROI for this included the measurement of 'traditional' benefits such as carbon reduction, but has been extended within the bounds of the common framework to include reduction in stress, Nox emissions and the benefit of reduction in lost time from traffic disruption.

A stretch target has been set of reducing the average duration of emergency roadworks from 5.1 to 3.0 days across ED2. As this target will require transformative change and be very challenging to deliver<sup>34</sup> the SROI of delivering a reduction to 4 and 3.5 days has been modelled as well as the ultimate cap of 3 days for comparative purposes. This also reflects the uncertainty and improvement that will be realised from the activities identified in this document, as such we have used the total cost of all activity<sup>35</sup> set out in [section 5.2](#) for all improvement scenarios. An optimism bias adjustment was made to the benefits modelled in line with the guidelines provided as part of the common framework.

These benefits were then assessed against costs, which for this example, because the costs of the activity are uncertain (as set out in [section 5](#)) we have also modelled the improvement based on achieving an average of 4 days duration by the end of ED2 from a start point of 5.1 days. This also reflects difficulties and challenges of achieving improvements in ED2.

Overall, the SROI assessment for 'Dig, Fix and Go' was assessed as having a total economic benefit per £ spent (SROI) of circa £8 for a reduction to 4 days, making it a relatively strong performing investment proposal for SROI in our ED2 plan, with an overall net present value assessment of circa £185m. Societal benefits account for 93% of the non-discounted costs and benefits modelled. The 5-year reporting figures are shown in figure 6.9.

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<sup>34</sup> Details set out in chapter 5

<sup>35</sup> As set out in the document, it is only optimal to incur costs upto the incentive rate estimated to be incurred. As such this is a key consideration for in period delivery and investment decision making and may not be all costs set out in the document and used in the modelling scenarios below.



Figure 6.9: 5-year Social return on investment estimations based on example improvement levels in RIIO-ED2

	Average duration at end of ED2		
	4 days	3.5 days	3 days
<b>Total cost</b>	£23,731,164.85	£23,731,164.85	£23,731,164.85
<b>Total gross present value</b>	£180,207,210.02	£262,119,578.21	£344,031,946.40
<b>NPV</b>	£184,729,606.33	£279,484,502.31	£374,239,398.30
<b>SROI (per £ spent)</b>	£7.78	£11.78	£15.77

## 6.8. Other commitments

As part of our successful delivery of service improvements we propose to commit to sharing best practice experience with other network operators and utilities via local and national fora such as Street Works UK, ENA street works forum, and North West Joint Utilities Group (JUG).

We will monitor and report defect and temporary reinstatement volumes to ensure that the delivery of this commitment does not have a detrimental effect on reinstatement quality. This will be achieved via two methods; highway authority inspections and internal inspections undertaken by our Street Works compliance teams.

In line with street works legislation each highway authority will inspect a random sample of 30% of our 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 our street works activities. These inspections check signing, lighting and guarding (SLG) safety and compliance, as well as the quality of backfill and reinstatement. In addition to the formal highway authority inspections we also carry out our own internal audits and inspections. These are undertaken by the Street Works Compliance Team as well as the managers directly responsible for the works. Our inspections contain the same key questions and areas of focus as those carried out by a highways inspector and we will publish this data, along with duration data, on our website.

As part of the quarterly performance meetings we hold with each of our local highway authorities we will report on our performance in terms of durations, defects and the results of our own sample inspections.

## 6.9. Section summary

Having carefully considered the targets and potential incentive design mechanisms which can ensure fairness and the appropriate balance for consumers and stakeholders we have concluded that this is best addressed through the following proposal:

Design parameter	Proposal	Level
Reward and/or Penalty	Symmetrical upside and downside	N/a
Caps and Collars	Symmetrical cap and collar	Cap – 3 days, Collar - 7.2 days
Dead bands	No dead band	+/- 0.0 days

Design parameter	Proposal	Level
Baseline Target	Fixed for the RIIO-ED2 period	5.1 days

Further, having assessed and analysed multiple methods of evaluating and calibrating the incentive rate for the bespoke ODI-F, the fairest and most appropriate method by which to set the incentive rate for this proposal is based on our primary willingness to pay research. This renders an incentive rate of £1.96m per average day reduction when taking into consideration the views of all our customers (domestic and non-domestic). Whilst we consider we have a robust estimate of the social impact and the additional benefit that will occur from reductions in duration, the value rendered from the assessment is clearly of a level which is too large to use as a sensible incentive rate for reward and penalty purposes. We do not propose a cost-based approach because the costs and service improvement by activity is uncertain due to the transformative change being targeted.

## 7. Conclusion

This proposal is driven from our customer and stakeholder needs and sets out a unique and innovative response to those requirements that have been shared with us. Customers, consumers and stakeholders are at the heart of this bespoke proposal and have been central to its development.

The changes we could deliver represent a transformational improvement in service, reducing the impact of our essential emergency fault works on the community we serve. It builds on our work in RIIO-ED1 to level up how quickly we undertake reinstatement operations across our region given consideration of what is affordable and deliverable within the current policy framework. It also has the potential to unlock large consumer benefit across our operating region through quicker removal of works and subsequent reduction in customer and stakeholder disruption. The benefits include, but are not limited to; reduced societal, environmental and economic impact of essential emergency works through minimised disruption from essential unplanned emergency fault works.

Our engagement has shown that there is strong and conclusive support for a transformative improvement in service from consumers and stakeholders alike, with it consistently being ranked towards the top of consumer priorities/valuation. There is robustly measurable WTP from both domestic and non-domestic consumers that can be used as one measure to quantify the consumer value/benefit of the proposal. To ensure that we are not over estimating this, and to ensure that we are consistent in the application of WTP results with our acceptability testing threshold, we have been conservative in selecting the WTP at the 80<sup>th</sup> percentile which understates the benefit that the majority of customers place on this proposal.

Without our bespoke proposal, it is highly unlikely that any material improvements in service will occur in RIIO-ED2 as the current regulatory framework and the legislative requirements create an environment by which DNOs and utility networks deliver an economically efficient level of service which is provided for by bill payers in their sectors. Additionally, we have identified a number of risks and significant delivery considerations that will have an impact on service and delivery improvements in the ED2 period if they are realised. These risks put increased timescale and cost pressures on delivering street works in RIIO-ED2, and further reinforce why an ODI-F is required to deliver improvements.

Having benchmarked our current performance at circa 5 days average duration against our peers and other comparable sectors our performance is significantly better against some benchmarks and conservatively, at worst, in line over the period. This applies on both a national and regional operating basis. This means that the targeted improvement in service at levels 1 (4 days) and 2 (3 days), as tested with customers, represents a stretching target that could potentially be achievable, but which will be challenging to achieve in the period of RIIO-ED2.

Having considered all the regulatory mechanisms available under the RIIO-ED2 regulatory framework our proposal is that this service improvement is best delivered and funded through a bespoke financial ODI (ODI-F). This is because the mechanism reflects the importance consumers place on the proposal, as directly measured through WTP, and because the proposal enables improved outcomes for consumers whilst encouraging value for money delivery. Finally, the use of an ODI-F is proportionate to the activity, focussing effort and ringfencing the activity around the incentive itself. We also consider an incentive reward is necessary to fund improvements in service where there will be additional incremental costs of achieving this service level.

A financial incentive which is tied to the customer value of the benefits (which is less than the societal benefits based on government data) from service improvement can only be implemented by the



economic regulator and it is this that is required if improvements beyond RIIO-ED1 are to be facilitated. There isn't an existing mechanism in RIIO-ED1 that can incentivise or deliver a transformative improvement in RIIO-ED2.

We estimate that the incremental costs necessary to fund improvements in service are material, but because of the challenge of forecasting these, given the transformational nature of the improvements being targeted, we consider that these are best funded and incentivised through a bespoke ODI-F. Because of this we have explicitly excluded any incremental costs of delivering the service improvements in this proposal from our baseline cost proposals.

Having carefully considered the targets and potential incentive design mechanisms to ensure fairness and the appropriate balance for consumers and stakeholders we have concluded that this is best achieved through a reward and penalty mechanism that is symmetrical, with cap and collar at 3 days and 7.2 days and no dead band, around a central baseline target of 5.1 days which is an improvement on our best performance in the ED1 period to date.

Further, having assessed and analysed multiple methods of evaluating and calibrating the incentive rate for the bespoke ODI-F, the fairest and most appropriate method by which to set the incentive rate for this proposal is based on our primary willingness to pay research. This renders an incentive rate of £1.96m per average day reduction when taking into consideration the views of all our customers (domestic and non-domestic). Whilst we consider we have a robust estimate of the social impact and the additional benefit that will occur from reductions in duration, the value rendered from the assessment is clearly of a level which is too large to use as a sensible incentive rate for reward and penalty purposes. We do not propose a cost-based approach because the costs and service improvements by activity are uncertain due to the transformative change being targeted.

Summary	Proposal
Name	<i>Dig, fix and go: Our emergency work commitment</i> – as decided by our online community
Definition	The average duration of Electricity North West's unplanned emergency fault street works in network days, as measured from the time of the site opening until the works are completed. This includes the full period of disruption for a single job covering both the work to find and fix the fault, as well as the time taken to reinstate the works
Consumer case/benefit	Quicker completion and removal of works leading to; reduced societal, environmental and economic impact of essential emergency operations including effect on wellbeing of, for example, noise and air pollution of extended works duration.  We have estimated the societal benefit per average day reduction across our annual unplanned emergency fault street works as £21m.
Mechanism	Output Delivery Incentive – Financial (ODI-F)
Type	Reward and Penalty
Baseline service target	5.1 days (fixed)
Cap service target	3.0 days
Collared service penalty level	7.2 days

Summary	Proposal
Dead band	No dead band
Incentive rate	+/- £1.96m (per average day reduction per annum)
Societal benefit/impact	+/- £10.67m (per average day reduction per annum)
Max incentive payment	+/- £4.11m (per annum)
Percentage Baseline revenue	+/- 1.02% <sup>36</sup> (per annum) proposed to be capped at 1.00%
Other commitments	<ul style="list-style-type: none"> <li>• Sharing best practice experience with other network operators and utilities via local and national fora such as Street Works UK, ENA street works forum, and North West Joint Utilities Group (JUG).</li> <li>• Monitor and report defect and temporary reinstatement volumes to ensure that the delivery of this commitment does not have a detrimental effect on reinstatement quality. Achieved through highway authority inspections and internal inspections undertaken by our Street Works compliance teams.</li> <li>• To publish this data, along with durations data, on our website.</li> </ul>

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<sup>36</sup> Revised estimation from draft business plan to reflect the final plan baseline Totex. We are proposing that the percentage and incentive payment is capped at the 1.00%.



## 8. Draft Licence condition

To support this proposal, we have provided a very basic initial draft associated licence condition. The box below is our drafted licence text which are willing to discuss and work with Ofgem on to finalise should this proposal be supported in Draft and/or Final Determinations as part of the business plan process. We have deliberately included an 'X' where the specific reference or content will not be known till later in the process, but where the reference is required to be included in the licence condition itself.

### 8.1. Proposed initial drafting

#### Special Condition X.X Reduction in street works duration incentive (XXXX)

##### Introduction

X.X.X The purpose of this condition is to calculate the term XXXX (the reduction in street works duration output delivery incentive term). This contributes to the calculation of the term ODI (the output delivery incentives term), which in turn feeds into Calculated Revenue in Special Condition X.X (Revenue restriction).

X.X.X The effect of this incentive is to reward the licensee where it delivers a reduction in the average duration of emergency (fault) street works through improvements in the duration of the works from site opening to the completion of the reinstatement work.

X.X.X This condition also requires the licensee to share best practice and publish compliance and duration data on its website.

##### Part A: Formula for calculating the reduction in street works duration incentive (XXXX)

X.X.X The value of the XXXX term is derived in accordance with the following formula:

$$XXXX = \min [(Xt \cdot XXXP), 0.005 \cdot EABR]$$

where:

Xt: is the improvement of the average duration of emergency (fault) street works in days from x.x days;

XXXP: means a reward of £1.96m for each day improvement in average duration from 5.1 days

EABR: means Ex-Ante Base Revenue.

##### Part B: Knowledge sharing requirement

X.X.X The licensee must share best practice experience with other network operators and utilities via local and national fora such as Street Works UK, ENA street works forum, and North West Joint Utilities Group (JUG). The Licensee must also publish compliance data, along with duration data, on the company website where relevant.

## 9. Appendix

### 9.1. Stakeholder engagement - online community verbatim responses

We gained 76 individual suggested names for our proposals in this area, highlighting how engaged our communities are when it comes to street works and the impact this has on their day to day lives. The suggestions are set out below:

1. "Fixed before you say 1,2,3"
2. "Keeping people moving safely"
3. "day delay promise"
4. "3-day essential fix"
5. "Energy Quick Fix"
6. "Community Fix Up"
7. "days is all it takes!"
8. "An efficient and quicker fix!"
9. "Bright Spark!!!"
10. "Cables to lay with less delay"
11. "Can we fix it? Yes, we can"
12. "Care and safety all the way!"
13. "Charging forward"
14. "Committed to maintain and update a healthy network."
15. "Committed to three!"
16. "Community work force"
17. "Dig right"
18. "Dig, Fix & Fill"
19. "Dig, Fix & Go"
20. "Dig, Fix and Go before, the days we hold you up hit four"
21. "Done in Three"
22. "Elec3fix!"
23. "Electrically efficient all the way!"
24. "Electricthree Promise!"
25. "Electrificent"
26. "ENW 3-day fix"
27. "ENW Commuter Commitment."
28. "ENW Electricare"
29. "ENW Fix Care"
30. "ENW Quick Repairs"
31. "ENW Smart Fix"
32. "Essential Work, Less Impact."
33. "Fair repair promise"
34. "Fast track to put the tarmac back."
35. "Faster Fixes - Fewer Fumes"
36. "Faster repairs promise"
37. "Fixed in a flash to save your cash!"
38. "Fixed in less time to give you more time."
39. "Fixed quicker for less flicker"
40. "Flash Fix"
41. "Getting A Shift On"
42. "High speed cable care"



43. "Cutting the mustard"
44. "Improved performance in less time!"
45. "Improvement time"
46. "It can be done in three!"
47. "Keep it flowing!"
48. "Keeping the spark alive"
49. "Less flicker fixed quicker"
50. "Less speed more haste"
51. "Less time, more power"
52. "Lightning Repairs"
53. "Moving the earth for faster repairs."
54. "Our Roadworks Resolve"
55. "Power Safe!"
56. "Quick Time Plan"
57. "Quicker fixing!"
58. "Quicker, faster, stronger"
59. "Rainbow"
60. "Regenerating the network"
61. "Re-lay Race."
62. "Renovo" (Latin for renew, renovate, refurbish, repair, restore)
63. "Road Up - Delays Down"
64. "Road Up and down in three!"
65. "Road Up!"
66. "Roadworks Promise"
67. "Safely fixed faster."
68. "Speed and safety guaranteed!"
69. "Sustainatricity"
70. "Swift repairs"
71. "The power of three!"
72. "Watts up!"
73. "We fix it in three!"
74. "Winning the umbrella struggle in just 3 days"
75. "Working hard to be efficient"
76. "Working hard to keep you safe!"

## 9.2. Benchmark data

### 9.2.1. Benchmarking – Regional<sup>37</sup>

Duration days	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
Bolton												
Bury												
Manchester												
Oldham												
Rochdale												
Salford												
Stockport												
Tameside												
Trafford												
Wigan												

Duration days	Q1 - 2020 (estimated average)	Q2 - 2020 (estimated average)	Q3 - 2020 (estimated average)	Q4 - 2020 (estimated average)	Period - 2020 (estimated average)
Bolton					
Bury					
Manchester					
Oldham					
Rochdale					
Salford					
Stockport					
Tameside					
Trafford					
Wigan					

<sup>37</sup> Source; Greater Manchester Road Activity Permit Scheme (GMRAPS) - 2020

Duration days	Jan-20	Feb-20	Mar-20	Apr-20	May-20	Jun-20	Jul-20	Aug-20	Sep-20	Oct-20	Nov-20	Dec-20
Bolton												
Bury												
Manchester												
Oldham												
Rochdale												
Salford												
Stockport												
Tameside												
Trafford												
Wigan												

Duration days	Q1 - 2020 (estimated average)	Q2 - 2020 (estimated average)	Q3 - 2020 (estimated average)	Q4 - 2020 (estimated average)	Period - 2020 (estimated average)
Bolton					
Bury					
Manchester					
Oldham					
Rochdale					
Salford					
Stockport					
Tameside					
Trafford					
Wigan					



### 9.3. Planned works

As set out in the proposal definition and clarified in the exclusions section 6.3, all planned works, including connections and non-emergency works are excluded:

- **Connections activities:** These can be planned ahead of time taking into account how best to deliver the works ultimately reducing the disruption of the works.
- **Non-emergency planned street works activities:** These works may be of longer duration due to the complexity of the works being undertaken. However, because these can be planned ahead of time, we can take into account how best to deliver the works ultimately reducing the disruption of the works.

### 9.4. Ofgem business plan guidance requirements for bespoke ODIs – RIIO-ED2 (Guidance version April 2021)

The business plan guidance published in April 2021 set out a number of requirements and areas of justification that companies should evidence and set out in their proposals. For brevity and ease of reference we have provided these below with references to the sections of the document where we have addressed these in the main.

There are obvious areas of cross over and where evidence is covering multiple business plan guidance requirements and so we would urge that the document is reviewed in its entirety if a cross check against the BPG is undertaken.

Criteria set out in 3.6	Section where addressed
reflect the network services that existing and future consumers/network users and/or wider stakeholders require.	<a href="#">Section 2</a>
be as complete as possible in capturing the activities and costs of the company in the relevant area.	<a href="#">Section 5</a>
be measurable and reportable.	<a href="#">Section 6</a>
allow comparison of performance across companies, where there is sufficient commonality.	<a href="#">Section 5.5</a>
capture the long-term nature of outputs, including how they will deliver, or facilitate the delivery of, benefits beyond the RIIO-ED2 price control period.	<a href="#">Section 5</a> and <a href="#">Section 6.7</a>
set stretching targets which are well-evidenced and deliver clear outcomes/outputs.	<a href="#">Section 5</a> and <a href="#">Section 6</a>

Criteria set out in 3.7	Section where addressed
why the activity in question is best dealt with through the RIIO-ED2 price control.	<a href="#">Section 3</a>
how the proposal is backed by robust evidence and justification (such as cost-benefit analyses)	All Sections
why the output is required in addition to the common RIIO-ED2 arrangements. This should include DNOs setting out why the suite of RIIO-ED2 outputs and incentives will not drive the outcomes to be delivered by the bespoke output proposal.	<a href="#">Section 3</a> and <a href="#">Section 4</a>
what value consumers will receive from a proposed new service level and, by extension, the potential associated reward and/or penalty, and the extent to which these are symmetrical, in terms of value and likelihood of outcome.	<a href="#">Section 6</a>
the extent to which an independent measure of the existing level of service that consumers receive is available and the degree to which the target level being proposed represents an improvement on this.	<a href="#">Section 5</a> and <a href="#">Section 6</a>
the level of service that is provided by other companies/comparators (where available) in the area of activity in question.	<a href="#">Section 5</a>
the activities (and indicative cost) associated with achieving the targeted level of service.	<a href="#">Section 5</a>
the proposed consequences to the DNO if performance falls below target level.	<a href="#">Section 6</a>
whether any costs associated with the bespoke output have been included elsewhere in companies' expenditure proposals. Any such costs should be clearly identified to avoid double counting.	<a href="#">Section 5.3</a>