



Business Plan 2023 - 2028

SA-07 Supplementary Annex
Managing Uncertainty



SA-07 Managing Uncertainty Contents

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1. Introduction

- 1.1. The next regulatory price control review period, known as RIIO-ED2, is a five year period and is the second for electricity distribution to be determined using Ofgem’s Revenue = Incentives, Innovation and Outputs framework. This price control period runs from 1st April 2023 to 31st March 2028.
- 1.2. Western Power Distribution (WPD) is required to submit a 200 page Business Plan document, supplementary annexes, detailed cost tables, financial information and a range of other documents which form our submission under RIIO-ED2 to Ofgem, which will be used to determine allowed revenues for the price control period.
- 1.3. Our RIIO-ED2 Business Plan has been produced and compiled in line with the following key principles:
 - Co-created with our stakeholders and supported by them
 - Our plan – ‘prepared with our stakeholders for delivery by us’
 - Aligned with WPD’s purpose and values
 - Affordable for all of our customers
 - Sustainable and will enable net zero before 2050
- 1.4. Everything in our business plan submission is driven to achieve the following four strategic outcomes for customers (shown in figure SA-07.1).



Figure SA-07.1 Our four strategic outcomes for customers

- 1.5. The diagram below (figure SA-07.2) shows the structure of the full Business Plan submission with the red box showing where this document fits into the overall suite of documents.

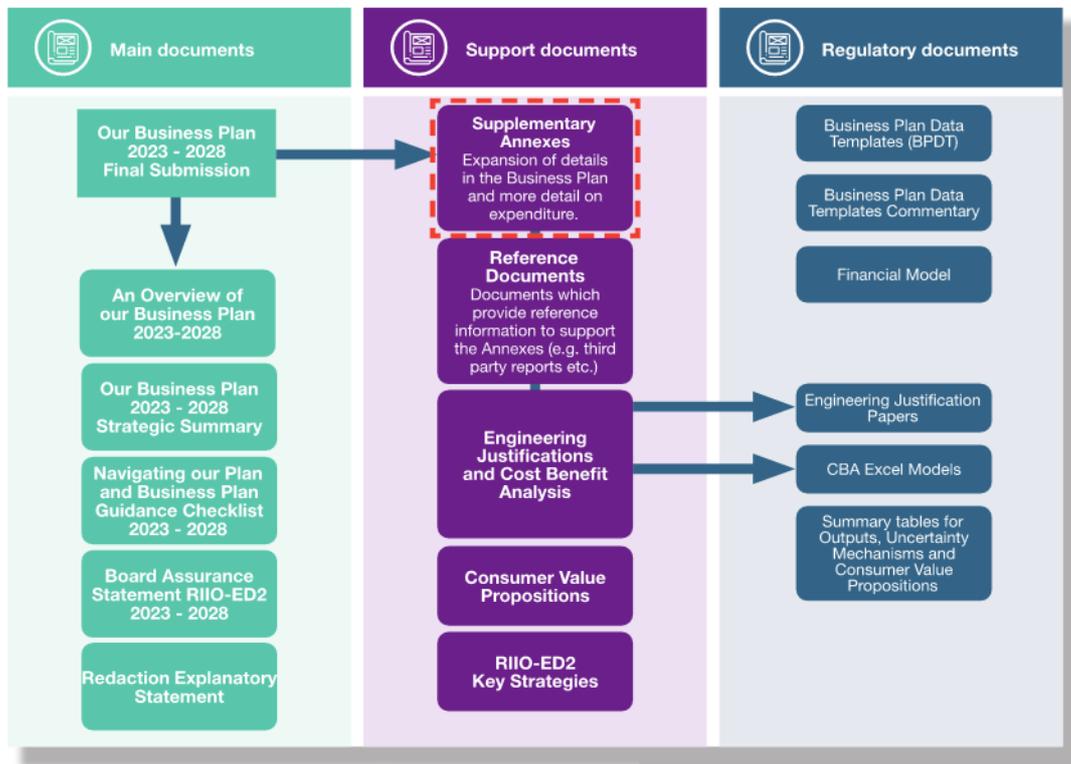


Figure SA-07.2 Business Plan submission structure

- 1.6. This document is a supplementary annex to Chapter 7 of WPD’s RIIO-ED2 Business Plan document. Annex 7: Managing uncertainty provides more detail on our approach to managing uncertainty during RIIO-ED2. It sets out how we propose to deal with circumstances that are outside of our control which may impact on the investment required on the network.
- 1.7. We appreciate that the readers of the WPD RIIO-ED2 Business Plan suite of documents will range from regulatory experts and well informed stakeholders through to new customers who may have had little previous knowledge of WP.
- 1.8. This document is aimed at readers who require a more detailed understanding. A less detailed description can be found in the Our Business Plan 2023-2028 Final Submission or An Overview of Our Business Plan 2023 – 2028 documents.
- 1.9. This document is subdivided into the following sections:

Section	Title	Content
2	Uncertainty and adapting to change overview	This section is an overview of why uncertainty mechanisms are needed and the different forms they can take
3	Reinforcement and strategic investment	This section details our proposals for uncertainty mechanisms for reinforcement investment
4	Other uncertainty mechanisms	This section describes the other uncertainty mechanisms we propose to be used in RIIO-ED2 and potential areas where re-openers may be applied.

5	Adapting to change	This section demonstrates our ability to adapt to situations encountered in RIIO-ED1.
6	Being adaptable	This section shows the model we will use to adapt quickly and effectively to unforeseen circumstances that arise in RIIO-ED2.

2. Uncertainty and adapting to change overview

- 2.1.** We recognise our Business Plan must be flexible and adaptable to the fast paced change associated with the shift to a smart energy future. While some types of work to manage the network are certain, the absolute volumes of activity will evolve over time. Potential changes in legislation and government policy and unforeseen events such as Covid-19, as experienced in the current price control period, can all bring uncertainty.
- 2.2.** Uncertainty mechanisms are financial mechanisms that flex the allowed revenue for DNOs, linked to changes in requirements not factored into baseline allowances, thereby protecting both customers and companies from risk. This annex sets out how uncertainty mechanisms work and how we will utilise them.
- 2.3.** Our RIIO-ED2 Business Plan includes costs for which we have robust information to support the proposed volumes of work based on historical information and detailed stakeholder engagement. Forecasting of workload and costs for a five year price control will always involve some uncertainty, particularly as the plan is submitted more than a year before the start of the period. Inevitably things will change between the time of the plan's submission and the end of the period. Many of these changes will not be significant and can be managed within the overall allowances with no adjustment.
- 2.4.** More significant challenges could include:
- A substantial shift in external policy; for example, new or amended legislation or government policy.
 - Changes to the amount that is being delivered compared to the level originally funded under the price control; for example, customer behaviour affecting the levels of electric vehicle or heat pump take up compared to the forecast.
 - A risk outside of WPD's control – for example, a pandemic.
- 2.5.** Although we are well placed to manage the risk to delivery of our plan, some areas of uncertainty call for additional mechanisms because of the external nature of the uncertainty and the scale of its potential impact. This is particularly true at present, when distribution networks face growing demands to be flexible as they adapt to changing circumstances in an increasingly complex world. Uncertainty mechanisms allow the revenues of network companies to change in line with changing requirements.
- 2.6.** Uncertainty mechanisms can be:
- Volume driven – where there is uncertainty about the future level of demand and the unit costs of work are similar.
 - Re-opener mechanism – where the needs case, timing or scope of a project is unclear.
 - Pass through mechanism – where expenditure is entirely outside the company's control.
 - Indexation – where the evolution of prices is unknown.
 - Use-it-or-lose-it (UIOLI) allowance - to adjust allowances where a specific activity has to be done but the costs are uncertain.
 - Price control deliverables – where volumes are originally agreed, but allowances are returned for work that is not required or completed.
- 2.7.** Ofgem has included a number of uncertainty mechanisms in the Sector Specific Methodology Decision (issued December 2020). This annex highlights how we propose to use these in our plan. It also demonstrates how we will adapt to change.

3. Reinforcement and strategic investment

Reinforcement proposals overview

- 3.1. In the period 2023 to 2028 the drive to transform the energy sector, including significant changes in the operation of the energy market and the facilitation of major volumes of electric vehicles and heat pumps, will clearly bring uncertainties. Although we have used future energy scenarios and information from engagement with wider stakeholders and local authorities to make our Best View forecasts, there will always be a level of uncertainty regarding the actual number of electric vehicles, heat pumps and new connections delivered by 2028. The remaining areas of uncertainty compared to RIIO-ED1, are significant government policy change in relation to net zero, and Ofgem’s latest work on the Access Significant Code Review (SCR).
- 3.2. WPD has developed its Best View through stakeholder engagement, forecasting and scenario modelling. It is a blended scenario which applies one of the four Distribution Future Energy Scenarios (DFES) scenarios at a local authority level, and delivers an outcome that is within the range of the three net zero compliant scenarios (see figure SA-07.3). Whilst we have created the Best View, expenditure at this level may have to be increased by 123% to achieve “Leading the Way” scenario by 2028 or reduced by 23% if a “System Transformation” scenario is followed.

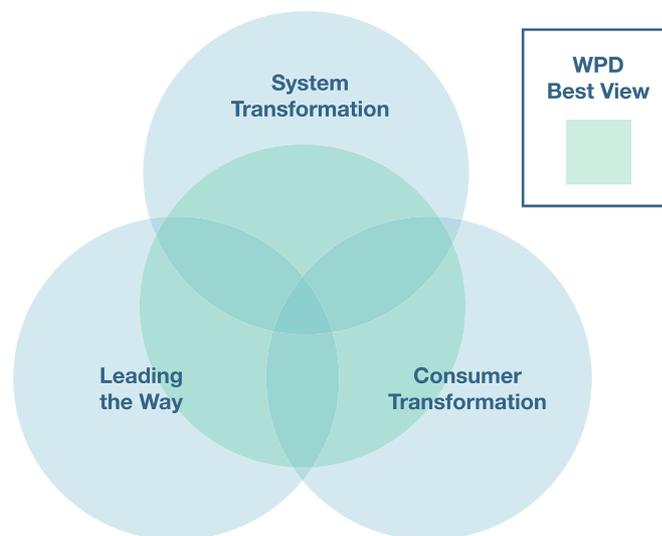


Figure SA-07.3 WPD’s RIIO-ED2 Business Plan positioning

- 3.3. To enable the RIIO-ED2 price control to deliver sufficient, timely capacity to support decarbonisation, facilitate the role of flexibility, protect customers from inefficient investment, and maintain a simple and pragmatic regulatory overhead, WPD has proposed new uncertainty mechanisms which we expect to play a larger part of load related expenditure than during RIIO-ED1. They are to be applied to the ex-ante funding across the following three investment categories:
 - Primary load related reinforcement.
 - Secondary load related reinforcement.
 - Service unlooping.
- 3.4. WPD’s baseline plan includes upfront investment to deliver the capacity required under WPD’s Best View, but the actual investment required will be driven by national and local government

policy, combined with activity in the consumer market. These factors are likely to change during the price control, driving a different need for reinforcement; therefore load related allowances need to be agile, to either increase or decrease, to respond to these changes and support any decarbonisation pathway taken by our customers without incurring delays.

- 3.5. We have based our Totex forecasts on the WPD Best View because it has greater certainty for the investment required especially in areas that are supported by historical growth, national targets and local area enablers. Using the DFES, WPD has identified the volumes and locations of constraints triggered in each scenario and the consequential low regret investment needed to accommodate the forecast growth.
- 3.6. Gross network investment triggered under any of the three net zero compliant scenarios from the DFES within the WPD group area totals £2,269 million, with a split of £904 million resulting from reinforcement of the primary network and £1,365 million across the secondary network. This forms our high case scenario.
- 3.7. WPD's Best View identifies the most credible and likely growth scenario and thus reduces the gross expected investment down to £1,020 million, with a split of £434 million and £586 million between primary and secondary expenditure respectively¹.
- 3.8. Our Low Case scenario is based on the investment triggered under all 3 net zero compliant scenarios. This identifies gross investment of £785 million, with a split of £324 million and £460 million between primary and secondary expenditure respectively.
- 3.9. We propose for any investment above or below WPD's Best View to be adjusted through uncertainty mechanisms (see figure SA-07.4).

Gross investment, £ million, 20/21 prices

Primary	High Case	WPD's Best View	Low Case
	904	434	324
Secondary	High Case	WPD's Best View	Low Case
	1365	586	460
Total	High Case	WPD's Best View	Low Case
	2269	1020	785

Figure SA-07.4 View of scenarios and comparing gross costs between scenarios

- 3.10. In order to balance risk, reduce complexity and maximise agility, WPD is proposing a range of symmetrical uncertainty mechanisms be applied to the load related expenditure. This will ensure that potential, but uncertain activities, can be funded whilst accommodating capacity growth and being net zero compliant.

¹ Supplementary Annex 7 presents gross (before customer contributions) investment values which include connections inside the price control and primary and secondary general reinforcement. The values in Supplementary Annex 6 are presented after customer contributions and are analysed between connections and general reinforcement.

Primary load related expenditure uncertainty mechanism

- 3.11.** On the primary network, activity to provide additional capacity to users will require greater bespoke actions that differ across voltage levels, the part of the network affected and the type of network constraint. Projects may range between a few hundred thousand pounds through to more than £25 million. Scheme numbers are fewer in volumes than for secondary network activity, with many falling into the requirement for Engineering Justification Papers (EJP). Another consideration is that significant progress has been made in RIIO-ED1 to allow primary network investment to be deferred or avoided through flexibility.
- 3.12.** In RIIO-ED1, investment has been funded ex-ante, with a load related reopener triggered outside of a materiality limit which considers load related expenditure in its entirety. The scale of potential uncertainty within RIIO-ED2 means this approach is no longer valid across the whole portfolio of projects. The difference between WPD's Best View and the high case scenario is more than double, requiring a very large bandwidth to deliver all net zero scenarios, which is not practically delivered by continuing with RIIO-ED1 load related mechanisms, as there is great scope for requirements to be different.
- 3.13.** WPD has prepared Engineering Justification Papers (EJPs) for all load related expenditure above £1 million, demonstrating transparency of the required investment and ensuring there is robust justification. As we anticipate the volume and scale of primary reinforcement will be larger than in RIIO-ED1, we are proposing that the primary load related expenditure will also be enabled by two symmetrical uncertainty mechanisms (see figure SA-07.5).

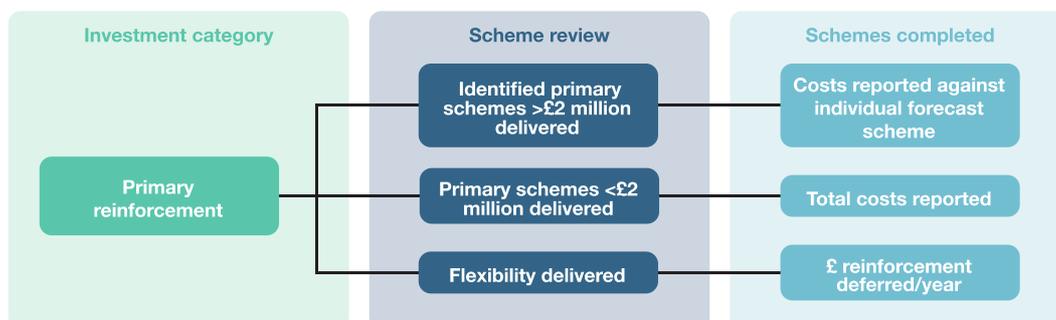


Figure SA-07.5 WPD's Primary reinforcement uncertainty mechanism proposal

- 3.14.** For primary network projects under £2million, the total investment will be aggregated together and profiled across the price control. This will be funded by an ex-ante allowance which will be subject to a RIIO-ED1-style load related reopener with a +/- 20% deadband and appropriate materiality threshold. Any deviation within the deadband from the ex-ante allowance will be subject to the Totex Incentive Mechanism (TIM) sharing factor, sharing the risk and benefits between customers and DNO. Where expenditure falls outside the deadband, adjustments can be made to allowances in a similar way to RIIO-ED1.
- 3.15.** For individual primary network projects where the expected cost exceeds £2 million, the forecast costs submitted in this Business Plan will be set as the ex-ante allowance. The uncertainty mechanism will then follow an adjustment approach where schemes not delivered will be refunded and new schemes will have additional funding allowed based on assessment of additional EJPs associated with the needs identified in Network Development Plans.
- 3.16.** Where flexibility is forecast to be employed, only the flexibility costs will be included in the ex-ante allowance and not the full conventional reinforcement costs, providing immediate savings

for customers. If flexibility is delivered as predicted, no further allowance adjustments are required. There may be situations where the predicted conventional reinforcement can be deferred by new flexibility. It is proposed to have a switching mechanism where flexibility and conventional allowances can be exchanged. To provide opportunities for cost outperformance under TIM, the unit rates for these switches would be set ex-ante based on cost assessment at the start of the price control.

- 3.17.** The proposed uncertainty mechanism will account for investment above or below our ex-ante Best View. Where schemes in excess of £2m are not delivered in the price control, these will be refunded. Schemes under £2m will be subject to greater churn, but customers will be protected from underspend through application of the TIM sharing factor and a limit on the deadband. Where growth exceeds the allowances, new £2m+ projects will have EJPs created and submitted as part of the regular Network Development Plan (NDP) publication under licence condition 25B for the regulator to approve, or instruct a direction for further work on the NDP until it can be approved.
- 3.18.** If changes to the economic or viability of the forecast investment option result in a project due for delivery by conventional reinforcement being delivered by flexibility, or vice-versa, then the flexibility allowance uncertainty mechanism will apply.
- 3.19.** At the end of the price control, should no re-openers be triggered, all primary reinforcement activity costs will be aggregated together and reported against the ex-ante allowance. The ex-ante allowance will be modified downwards for any schemes over £2m which have not been delivered and it will be modified upwards for any additional schemes reported through the NDP publication which have been approved by the regulator. Flexibility usage and benefits (reported annually in the E6 table in the RRP Annex J) will be used to inform flexibility allowances. All allowances will be summated and TIM will be applied on the total variances on costs against the RIIO-ED2 allowance.
- 3.20.** Load index reporting tables and identified requirements in Network Development Plans will ensure investment within the primary network is undertaken in line with system need.
- 3.21.** Using the table provided in Ofgem's Business Plan Guidance, we have prepared the following summary of our proposal for the primary reinforcement UM (see figure SA-07.6).

Issue	Information	WPD proposal
What is the issue/risk that the proposed mechanism addresses?	Set out the uncertainty identified and why an uncertainty mechanism might be appropriate. Is the issue/risk regionally specific or industry wide?	The uncertainty arises due to unknown variables surrounding decarbonisation, including the actual extent of electrification delivered by 2028, and any applied energy efficiency measure. Whilst the company best view will have determined the most likely outcome through stakeholder engagement and modelling, there is potential for there to be variability in when the investment will be needed and whether the trigger point will occur in ED2.
If the mechanism was adopted in the RII0-ED2 price control, where would the ownership of risk lie in relation to the uncertainty covered by the proposed mechanism?	Clearly set out where the risks lie with regard to customer/company/both, justifying why the apportionment is appropriate.	We are proposing to employ a Totex Incentive Mechanism (TIM) when comparing the ex-ante and uncertainty mechanism-driven allowances against actual costs incurred and outputs delivered at the end of the price control. This means the risk and benefits will be shared between customers and DNO. Furthermore, our PCD-lite approach for projects above £2m would protect the consumer from underinvestment.
Materiality of issue	Quantification of the materiality of the issue (ie what is the expenditure exposure of the issue) – we will not prescribe a specific methodology for the quantification of materiality.	Primary load related expenditure is expected to be £434m, but could be as high as £904m or as low as £324m.
Frequency and probability of issue over the price control period	What is the expected frequency and probability of the issue arising during the price control period?	The variability of the investment will arise from multiple projects (tens per licence area per year). The probability is harder to ascertain, but the range of variation is built from industry scenario data, whereby each of the four scenarios is allocated an equal 25% probability. The volume and scale of primary reinforcement will be larger than RII0-ED1.
What is the proposed mechanism?	A description of what the mechanism is and how it works. This needs to be detailed enough to allow for potential implementation. If there is a materiality threshold, this would need to be set out as a percentage of allowed revenue. If there is a specific trigger event this should be defined.	We are proposing that the primary load related expenditure will be enabled by two symmetrical uncertainty mechanisms depending on the size of the projects. For each project delivered across the primary network

		<p>under £2 million, the total investment will be aggregated together and profiled across the price control. This will be funded by an ex-ante allowance which will be subject to an ED1 style load related reopener with a +/- 20% deadband and appropriate materiality threshold. Any deviation from the ex-ante allowance will be subject to the TIM.</p> <p>The volume driver is based on the number of specific, identified primary schemes delivered which will be supported by Engineering Justification Papers (EJPs). WPD has committed to publishing EJPs for all schemes above £1 million.</p> <p>For projects where the expected cost exceeds £2 million, the uncertainty mechanism will follow a PCD-lite approach meaning schemes not delivered will be fully refunded. Here, actual project costs, as justified in the EJPs, will be set as the ex-ante allowance.</p> <p>Finally, we are proposing windows where the projects can be submitted for re-evaluation. These will occur every two years coinciding with the publication of the DNOs Network Development Plan. In light of forecasts changing, this will open options in terms of considering changes to scheme numbers, costs or profiling. This could therefore provide a route for strategic investment to be funded.</p>
<p>What are the justifications for the mechanism?</p>	<p>Set out the benefits of the mechanism</p>	<p>There is a clear need for the above uncertainty mechanism to ensure that the anticipated, but uncertain activities, can be funded. In addition to the efficiency and risk reduction benefits, this mechanism allows flexibility to be funded without the risk of double/triple funding occurring whilst also provides a route for strategic investment to be enabled and</p>

		funded. This mechanism is also aligned to customer need of net zero.
What are the drawbacks of the proposed mechanism?	Set out the drawbacks of the mechanism. Again, where possible, the materiality of these drawbacks need to be set out (eg the impact on charging volatility).	<p>Primary reinforcement does not consist of homologous units. Projects can range in size from a few hundred thousand pounds to >£25 million meaning costs are not uniform.</p> <p>For sub £2 million projects there will be less visibility of the individual project costs as these are aggregated into one category. However, the costs can still be managed by reviewing and comparing against forecasts.</p> <p>Another potential drawback is higher regulatory burden associated with carrying out and resourcing this uncertainty mechanism. However, this is outweighed by ultimately leading to improved outcomes and efficiency for customers and thus the additional regulation required is not considered excessive. Linking to this, the primary mechanism will provide regular visibility of the large schemes proposed for delivery, and only needs input from the regulator if the aggregate costs/outputs of projects is greatly different from ex-ante proposal.</p> <p>The drawbacks can further be reduced by reviewing the mechanism and providing visibility to the regulator through reporting costs against the project on a regular basis.</p>
Can the drawbacks be reduced?	Explain why the drawbacks cannot be mitigated through alternative mechanism designs (eg by using a volume driver instead of logging-up or cost pass-through).	<p>Having originally considered funding to be ex-ante alone, the scale of potential uncertainty within RIIO-ED2 means this approach is no longer valid across the whole portfolio of projects.</p> <p>A volume driver is the most appropriate mechanism as the actual investment required is determined by external factors outside of our control such as government policy and</p>

		consumer activity in the market.
Explanation of how on balance, the mechanism delivers value for money while protecting the ability to finance efficient delivery.	Explanation of why the benefits of the mechanism outweigh the drawbacks. We also expect the quantification of how the proposed mechanism delivers value for money whilst ensuring efficient delivery.	<p>This mechanism importantly protects costumers from under-investment as work not delivered is refunded.</p> <p>Being subject to the TIM provides incentives for efficiency and out-performance by sharing the ratio of underspend and overspend.</p> <p>Overall, our unique approach to uncertainty will enable any decarbonisation pathway to be taken by our customers without incurring delays.</p>
Treatment in BPDTs	Outline how the associated costs have been treated in the BPDTs.	<p>WPD's Best View has been included in baseline totex and reported in BPDT table CV1 primary reinforcement and C2 Connections.</p> <p>The high and low case scenarios are reported in the LRE appendix only and are not reflected in baseline totex.</p>
Reporting in RIIO-ED2 RRP	WPD's proposal for how these costs and volumes can be captured in the annual RRP reporting process	<p>Progress will be reported through the BPDTs annually in table CV1 and in Connections reporting.</p> <p>The Network Development Plans required under C25B will provide a pathway to support and new investment and the C25B process is established with the regulator able to set a direction for further engagement and evidence ahead of approval.</p> <p>Further details on any innovative solutions deployed can be added in E6 table of the RRP Annex J.</p>

Figure SA-07.6 WPD's Primary reinforcement uncertainty mechanism overview

3.22. A worked example of how the uncertainty mechanism will work with existing reporting arrangements is shown by the flowchart in figure SA-07.7. It does not include further aspects for consideration, such as materiality limits, frequency of assessment or the use of automated allowance adjustments.

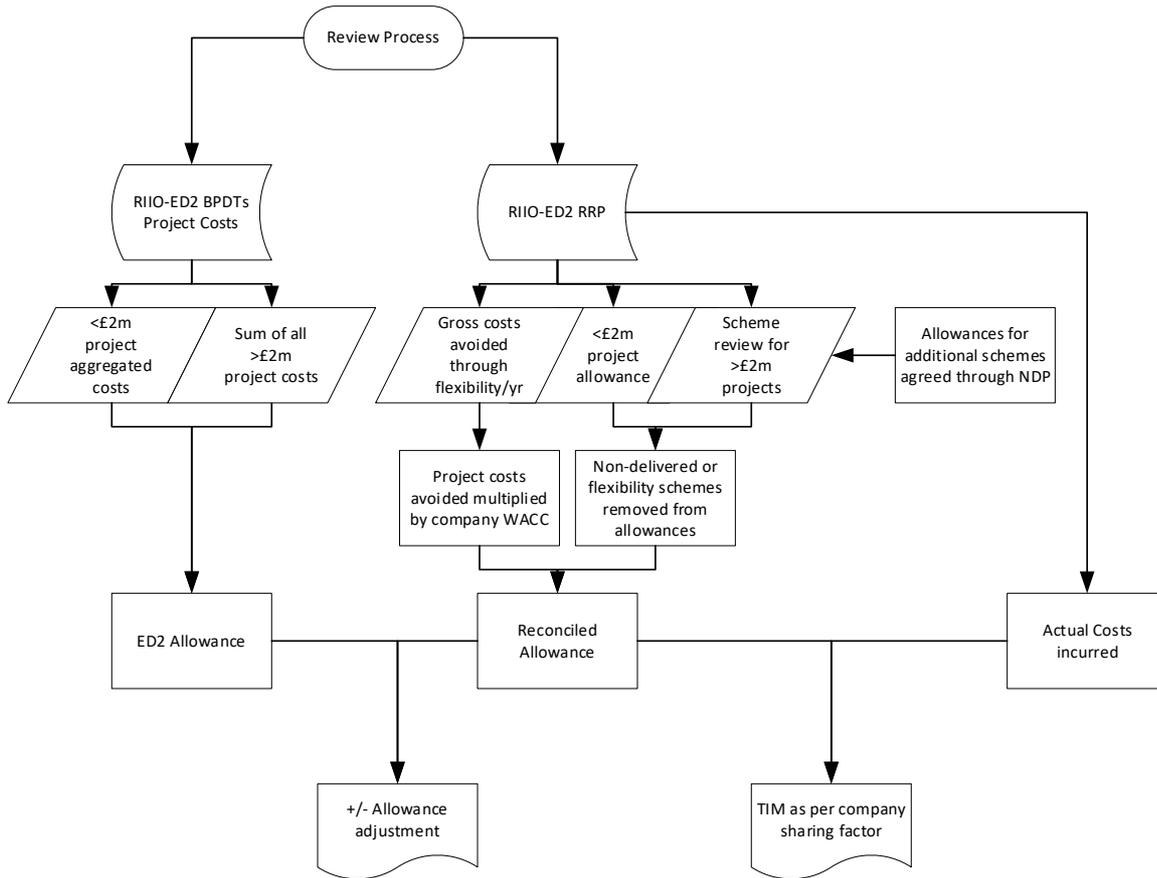


Figure SA-07.7 Primary reinforcement uncertainty mechanism worked example

Secondary load related expenditure uncertainty mechanism

3.23. On the secondary network, activity involved in providing additional capacity to customers will likely involve upgrading or installing new high voltage (HV) and low voltage (LV) circuits, as well as upgrading or adding new pole mounted or ground mounted distribution transformers. Some of this physical reinforcement activity may also be deferred or avoided due to flexibility offerings.

3.24. As this work has historically had the costs and volumes of activity reported at an aggregated licence area level, moving it to a symmetrical volume or capacity driver and unit cost model requires little adaption to existing regulatory processes.

- 3.25.** For linear assets we are proposing a volume driver unit aligned to the length of asset installed (in kilometres), split between LV and HV circuits (see figure SA-07.8). For transformer capacity, we are proposing a measure of capacity added (in MVA), split between overhead and underground networks due to the variation in costs. Flexibility will be reported against the volumes of conventional reinforcement deferred. Unit costs will be agreed ex-ante.

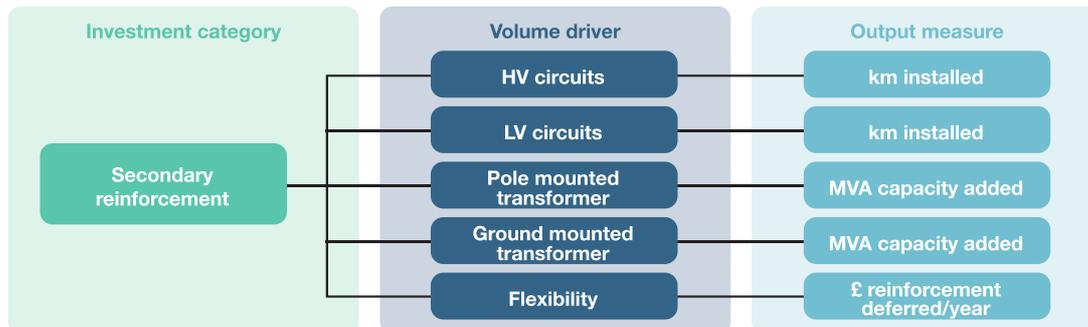


Figure SA-07.8 WPD's Secondary reinforcement uncertainty mechanism proposal

- 3.26.** Where flexibility is forecast to be employed, only the flexibility costs, have been included in the ex-ante forecast and not the full conventional reinforcement costs. This delivers immediate savings for customers and if flexibility is delivered as predicted, no further costs are required.
- 3.27.** The proposed uncertainty mechanism will account for investment above or below our ex-ante Best View. We will provide annual volumes of activity profiled by each investment category. Where the volumes delivered differ from these profiles, a mechanistic uncertainty mechanism based on the ex-ante unit costs and volumes delivered will be applied to adjust any allowances in both directions.
- 3.28.** If changes to the economic or viability of the forecast investment option result in a project due for delivery by conventional reinforcement being delivered by flexibility, or vice-versa, then flexibility allowance uncertainty mechanism will apply.
- 3.29.** The outturn and forecast load index reporting tables in the annual RRP Annex B table CV2 will ensure investment within the secondary network is undertaken according to system need, taking into account that monitoring and visibility on the secondary network will improve during the price control period.
- 3.30.** Using the table provided in Ofgem's Business Plan Guidance, we have prepared the following summary of our proposal for the secondary reinforcement UM (see figure SA-07.9).

Issue	Information	WPD proposal
What is the issue/risk that the proposed mechanism addresses?	Set out the uncertainty identified and why an uncertainty mechanism might be appropriate. Is the issue/risk regionally specific or industry wide?	The uncertainty arises due to unknown variables surrounding decarbonisation, including the actual extent of electrification delivered by 2028, and any applied energy efficiency measure. Whilst the company best view will have determined the most likely outcome through stakeholder engagement and modelling, there is potential for there to be variability in when the investment will be needed and whether the trigger point will occur in ED2.
If the mechanism was adopted in the RIIO-ED2 price control, where would the ownership of risk lie in relation to the uncertainty covered by the proposed mechanism?44	Clearly set out where the risks lie with regard to customer/company/both, justifying why the apportionment is appropriate.	We propose to employ a Totex Incentive Mechanism (TIM) when comparing the ex-ante and uncertainty mechanism driven allowances against actual costs incurred and outputs delivered. This means the risk and benefits will be shared between customers and DNO.
Materiality of issue	Quantification of the materiality of the issue (ie what is the expenditure exposure of the issue) – we will not prescribe a specific methodology for the quantification of materiality.	Secondary load related expenditure is expected to be £586m, but could be as high as £1365m or as low as £460m.
Frequency and probability of issue over the price control period	What is the expected frequency and probability of the issue arising during the price control period?	Capacity volumes and linear asset volumes will be frequently upgraded within the price control, as this is a high volume area of activity. The probability is harder to ascertain, but the range of variation is built from industry scenario data, whereby each of the four scenarios is allocated an equal 25% probability. The volume and scale of primary reinforcement will be larger than RIIO-ED1.
What is the proposed mechanism?	A description of what the mechanism is and how it works. This needs to be detailed enough to allow for potential implementation. If there is a materiality threshold, this would need to be set out as a percentage of allowed revenue. If there is a specific trigger event this should be defined.	We are proposing an automatic symmetrical volume driver and unit cost model to enable allowances to flex both up and down. For linear assets the volume driver unit will be aligned to the length of asset installed in km. For transformer capacity, we are proposing a measure of capacity added (in MVA), split between overhead and underground networks. Finally,

		flexibility will be measured against the capacity accommodated for one year (in MVA). The proposed uncertainty mechanism will account for investment above or below our ex-ante Best View. We will provide annual volumes of activity profiled for our Best View across these categories. Where the volumes delivered differ from these profiles, an annually triggered uncertainty mechanism based on the ex-ante unit costs and volumes delivered will be applied to adjust any allowances in both directions.
What are the justifications for the mechanism?	Set out the benefits of the mechanism	There is a clear need for the above uncertainty mechanism to ensure that the anticipated, but uncertain activities, can be funded. In addition to the efficiency and risk reduction benefits, this mechanism also provides a route for strategic investment to be enabled and funded. This mechanism is also aligned to the customer need of net zero.
What are the drawbacks of the proposed mechanism?	Set out the drawbacks of the mechanism. Again, where possible, the materiality of these drawbacks need to be set out (eg the impact on charging volatility).	<p>In terms of increased regulatory burden, annual true up and reporting will require new financial mechanisms to be created, resulting in increased reporting and more regulatory burden. We believe this is justified as the benefits outweigh costs so this is not considered to be excessive. Furthermore, the secondary mechanism will only require additional regulatory input at the end of the price control as the mechanism works in a way which enables automatic allowance increases based on volumes.</p> <p>If ex ante unit costs are not representative across whole price control could lead to systematic over/under recovery. However, benchmarking from the regulator will help to mitigate this. The TIM will also act as a mitigation process because any risk of over or under recovery are shared between customers and DNOs.</p>

Can the drawbacks be reduced?	Explain why the drawbacks cannot be mitigated through alternative mechanism designs (eg by using a volume driver instead of logging-up or cost pass-through).	The proposal provides a more balanced option that additional ex-ante funding, or cost pass-through. It will also allow more agile delivery than a re-opener mechanism, which will be crucial in enabling different net zero pathways to be delivered.
Explanation of how on balance, the mechanism delivers value for money while protecting the ability to finance efficient delivery.	Explanation of why the benefits of the mechanism outweigh the drawbacks. We also expect the quantification of how the proposed mechanism delivers value for money whilst ensuring efficient delivery.	One of the central benefits is that the secondary mechanism delivers improved outcomes for customers by protecting customers from under-investment. In addition to this, by utilising the TIM, incentives for efficiency and out-performance are provided by sharing the ratio of underspend and overspend.
Treatment in BPDTs	Outline how the associated costs have been treated in the BPDTs.	WPD's Best View has been included in baseline totex and reported in BPDT table CV2 secondary reinforcement and C2 Connections. The high and low case scenarios are reported in the LRE appendix only and are not reflected in baseline totex.
Reporting in RIIO-ED2 RRP	WPD's proposal for how these costs and volumes can be captured in the annual RRP reporting process	Progress will be reported through the RRP annually in table CV2 and in Connections reporting. Further details on any innovative solutions deployed can be added in E6 table of the RRP Annex J.

Figure SA-07.9 WPD's Secondary reinforcement uncertainty mechanism overview

3.31. A worked example of how the uncertainty mechanism will work with existing reporting arrangements is shown by the flowchart in figure SA-07.10. It does not include further aspects for consideration, such as materiality limits, frequency of assessment or the use of automated allowance adjustments.

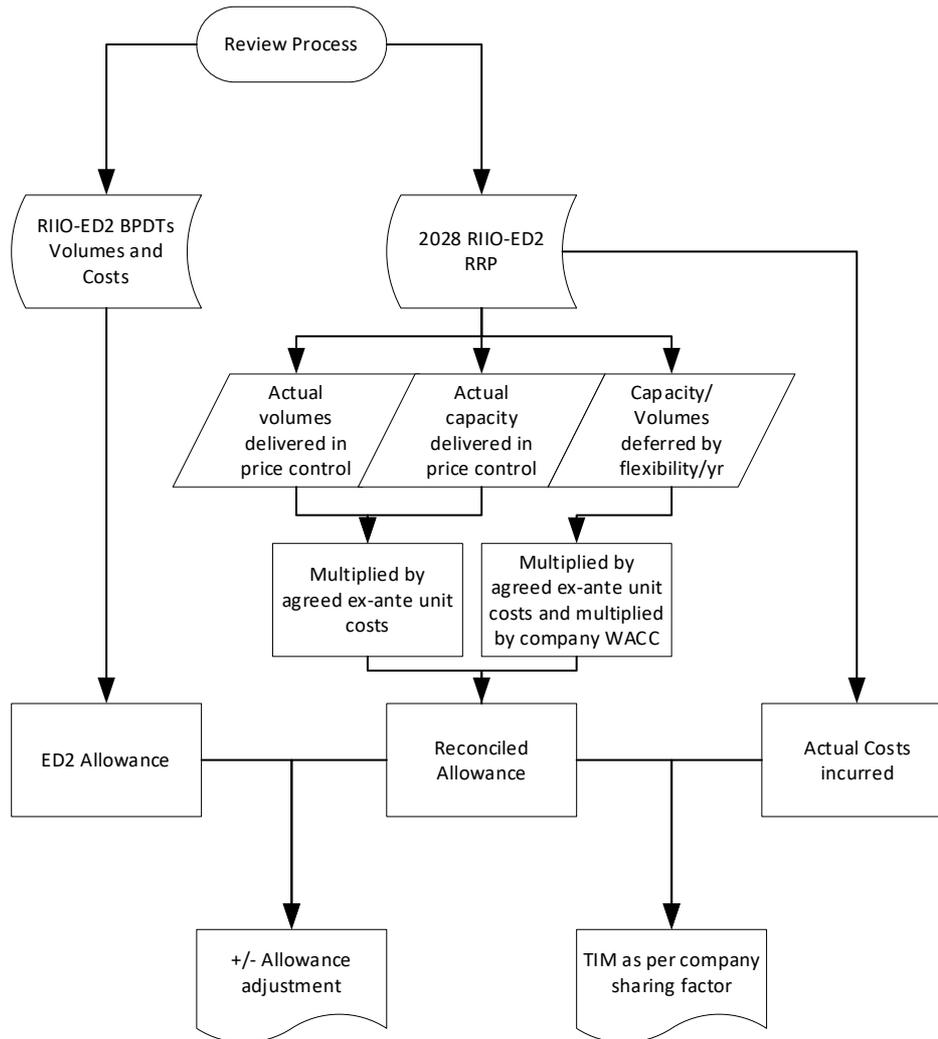


Figure SA-07.10 Secondary reinforcement uncertainty mechanism worked example

Flexibility allowance uncertainty mechanism

3.32. During RIIO-ED1, flexibility has been used to defer reinforcement. Benefits of this have been shared between customers and networks using the TIM. The existing treatment of flexibility deferral unlocking the full funding of the conventional reinforcement, has greatly incentivised the uptake of flexibility, but is not suitable given the maturity of the solution now.

3.33. For flexibility to be economic, the flexibility service costs should be less than the benefit of not borrowing money for the conventional reinforcement, for the time period of deferral. This results in the flexibility costs being order of magnitudes lower than the conventional reinforcement costs. This poses significant risk on the networks should a scheme forecast to be delivered by flexibility become uneconomical or unviable; a single flexibility scheme moving to being delivered conventionally would materially impact allowances.

- 3.34.** A flexibility allowance uncertainty mechanism could protect customers from over funding where the application of flexibility is more favourable and equally protect networks where the application of flexibility is adverse.
- 3.35.** A flexibility allowance uncertainty mechanism can protect customers from over funding where the application of flexibility is more favourable and equally protect networks where the application of flexibility is adverse. It is not a volume driver itself, as the volumes of activity are managed through the agreed ex-ante allowances and the proposed primary and secondary uncertainty mechanisms. Instead, it is an uncertainty mechanism to switch between a flexibility and reinforcement allowance, ensuring DNOs undertaking conventional reinforcement where flexibility not being available are not penalised and that where flexibility provides greater opportunities for deferring conventional reinforcement, customers are protected against excessive funding.
- 3.36.** The proposed uncertainty mechanism will account for changes in the use of flexibility; where existing primary or secondary allowances become viable for flexibility in the price control. As the conventional reinforcement will not be delivered this will be refunded. The conventional reinforcement costs from the EJP or agreed ex-ante unit costs will be used as the justification for a baseline gross avoided costs and an annual allowance will be given based on the company weighted average cost of capital (WACC) savings against these baseline gross avoided costs. Where flexibility continues to defer the reinforcement, the annual allowance will be provided. Similarly, should flexibility become unviable, then allowances for flexibility can be withdrawn and allowances for conventional reinforcement revised upwards.
- 3.37.** Flexibility costs and the gross avoided cost of reinforcement will be reported in detail within the annual RRP (Annex J, table E6), as per RIIO-ED1. This will be on a per scheme basis for primary projects over £2m, linked to EJPs. It will be on an aggregated basis for primary projects under £2m and for each unit cost category of secondary reinforcement. Total costs and volumes will continue to be reported aggregated within CV1 and CV2. Whilst data will be reported annually, the flexibility allowance uncertainty mechanism will only be reconciled at the end of the price control, reducing the regulatory burden of additional assessment in the price control.

Service unlooping uncertainty mechanism

- 3.38.** At the most remote ends of our network, LV services were frequently looped together to reduce the cost of servicing multiple properties in close proximity. However, these arrangements are not suitable for the increased loads associated with charging electric vehicles and energy for heat pumps. This means that the service arrangements need to be unlooped. The rate at which these services will need to be unlooped has been increasing due to the additional notifications received from the connection of LCTs. In line with DFES predicted activity, service unlooping should be considered low regret and least cost to proactively and strategically invest ahead of need where this can be achieved, in order to deliver greater efficiency rather than carrying out the work as a reactive programme.
- 3.39.** For each unlooped service delivered proactively within a programme, we propose a simple symmetrical volume driver with ex-ante unit costs (see figure SA-07.11). Activity will be disaggregated down to volumes of cut out replacements, underground services unlooped and overhead services unlooped. Volumes of services will be based on MPANs affected. The ex-ante provision will be based on our Best View, which is stakeholder informed and aligned to the DFES.



Figure SA-07.11 Services uncertainty mechanism proposal

- 3.40.** The proposed automatic symmetrical uncertainty mechanism will be applied annually to the ex-ante allowance. Volumes of activity will be reported through the annual RRP (Annex B CV2). At the end of the price control, TIM will be applied to the actual costs of the activity and compared to the allowances based on volumes delivered and ex-ante unit costs.
- 3.41.** Using the table provided in Ofgem’s Business Plan Guidance, we have prepared the following summary of our proposal for the services UM (see figure SA-07.12).

Issue	Information	Explanation
What is the issue/risk that the proposed mechanism addresses?	Set out the uncertainty identified and why an uncertainty mechanism might be appropriate. Is the issue/risk regionally specific or industry wide?	The uncertainty arises as a result of various unknown variables such as the timing of investment, the growth trajectory for the uptake of low carbon technologies (LCTs) and ultimately behaviour in consumer markets outside of our control. This uncertainty mechanism addresses the uncertainty over timing, location and volumes. Furthermore, there is often a time delay surrounding the data we receive on LCTs connecting to our network. The time lag between connection and customers notifying WPD creates a large uncertainty as it reduces the accuracy of our forecast as the dataset is not complete.
If the mechanism was adopted in the RIIO-ED2 price control, where would the ownership of risk lie in relation to the uncertainty covered by the proposed mechanism?44	Clearly set out where the risks lie with regard to customer/company/both, justifying why the apportionment is appropriate.	The risk is balanced between DNO and consumers. For example if actual unit costs are greater than ex ante benchmark costs, customers and DNOs will share the impact under the Totex Incentive Mechanism (TIM). A sharing factor will be applied to the volumes of activity where the TIM is used, as determined through the business planning process.
Materiality of issue	Quantification of the materiality of the issue (ie what is the expenditure exposure of the issue) – we will not prescribe a specific methodology for the quantification of materiality.	This cost category has the potential to be many multiples of the current ex-ante funding set forward based on the number of customers with looped supplies if these all needed intervention during the price control. It is unclear if all services will need to be unlooped in the future and when this phasing may occur. Some customers may be using other energy vectors so looped services might continue to be the most economically viable option. However, at the other end, we could see a future with no looped services existing.
Frequency and probability of issue over the price control period	What is the expected frequency and probability of the issue arising during the price control period?	There are approximately 10% of customers with looped services, equating to around 800,000 services which will potentially need intervention. Therefore, there is a high probability of the uncertainty mechanism being utilised. During RIIO-ED2, the volume of service unlooping investment required will depend directly on the rate of uptake of LCTs such as electric vehicles and heat pumps.

<p>What is the proposed mechanism?</p>	<p>A description of what the mechanism is and how it works. This needs to be detailed enough to allow for potential implementation. If there is a materiality threshold, this would need to be set out as a percentage of allowed revenue. If there is a specific trigger event this should be defined.</p>	<p>We are proposing the use of a simple symmetrical volume driver with ex-ante unit costs whereby we can flex allowances up and down against WPD's Best View. Service unlooping will be based on volumes of work delivered through unit based metrics with benchmarked costs.</p>
<p>What are the justifications for the mechanism?</p>	<p>Set out the benefits of the mechanism</p>	<p>There is a clear need for this uncertainty mechanism to support the net zero transition. The uncertainty surrounding the actual number of new connections for electric vehicles charging points and heat pumps means we need to strategically invest in unlooping ahead of time rather than in a reactive way in order to avoid presenting barriers for net zero incentives. The main benefits include driving efficiency in delivering capacity to support decarbonisation and protecting customers from risk of under-investment. Utilising the TIM will further promote efficiency.</p>
<p>What are the drawbacks of the proposed mechanism?</p>	<p>Set out the drawbacks of the mechanism. Again, where possible, the materiality of these drawbacks need to be set out (eg the impact on charging volatility).</p>	<p>Potential drawbacks could include causing volatility or unpredictability in network charges as costs can fluctuate at the remote ends of the network depending on location.</p> <p>As this is a proactive programme there are high unit costs which are based on unit prices put forward by the network company. Costs therefore may not be accurate and/or representative and the delivery cost could be less than ex-ante cost. To counteract this, Ofgem can use a benchmark and compare across companies to ensure standardisation of costs for the network as a whole.</p> <p>As noted above, this is a simple volume driver mechanism meaning network companies are incentivised to deliver more volumes. To regulate this, network companies will be reporting the number of LCTs connected to the network, allowing the regulator to ensure the proactive programme remains in line with the uptake of LCTs.</p>
<p>Can the drawbacks be reduced?</p>	<p>Explain why the drawbacks cannot be mitigated through alternative mechanism designs (eg by using a volume driver instead of logging-up or cost pass-through).</p>	<p>A re-opener mechanism is not suitable as we need to be agile throughout the price control period. Funding this ex-ante alone would also not be feasible due to the significant level of uncertainty</p>

		<p>surrounding the potential levels of investment.</p> <p>Having originally considered an upwards-only volume driver, we have evolved our uncertainty mechanism to be symmetrical, flexing allowances up and down, thereby incentivising efficiency.</p>
<p>Explanation of how on balance, the mechanism delivers value for money while protecting the ability to finance efficient delivery.</p>	<p>Explanation of why the benefits of the mechanism outweigh the drawbacks. We also expect the quantification of how the proposed mechanism delivers value for money whilst ensuring efficient delivery.</p>	<p>This uncertainty mechanism allows the work to be funded without a huge regulatory burden and crucially protects customers from under-investment.</p> <p>Utilising the TIM provides incentives for efficiency and out-performance by sharing the ratio of underspend and overspend.</p> <p>Our unique approach to uncertainty will enable any decarbonisation pathway to be taken by our customers without incurring delays, thereby improving outcomes for customers.</p>
<p>Treatment in BPDTs</p>	<p>Outline how the associated costs have been treated in the BPDTs.</p>	<p>WPD's Best View for proactive services has been included in baseline totex and reported in BPDT table CV2 secondary reinforcement</p>
<p>Reporting in RIIO-ED2 RRP</p>	<p>WPD's proposal for how these costs and volumes can be captured in the annual RRP reporting process</p>	<p>Progress will be reported through the RRP annually through Annex B table CV2.</p>

Figure SA-07.12 WPD's Services uncertainty mechanism overview

3.42. A worked example of how the uncertainty mechanism will work with existing reporting arrangements is shown by the flowchart in figure SA-07.13. It does not include further aspects for consideration, such as materiality limits, frequency of assessment or the use of automated allowance adjustments.

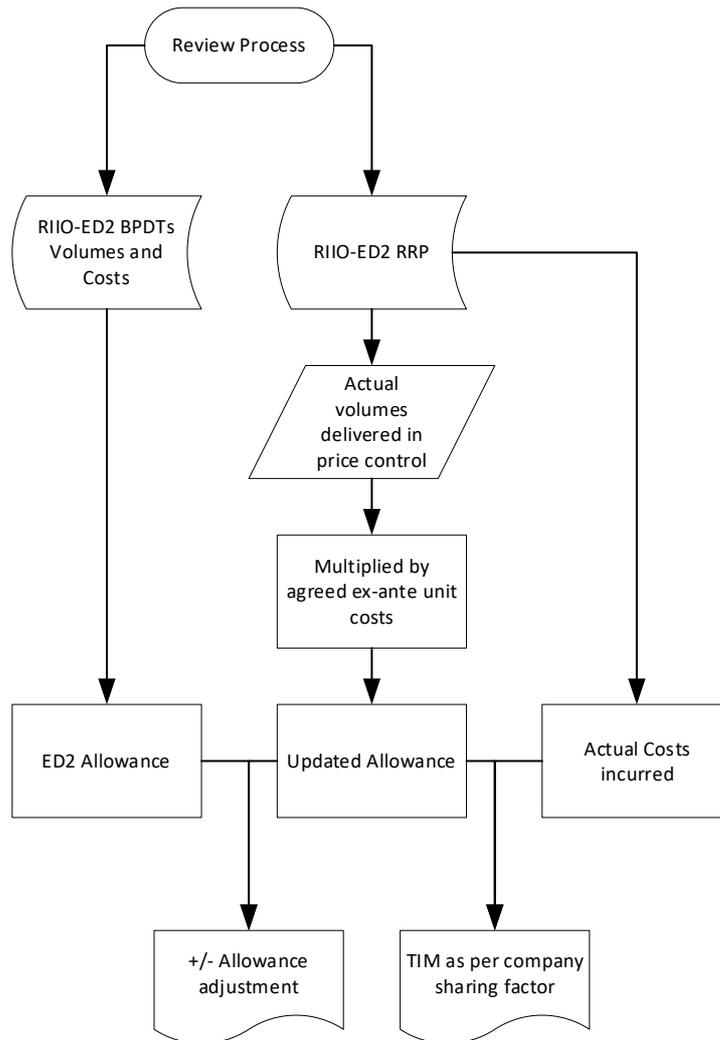


Figure SA-07.13 Services uncertainty mechanism flow chart

4. Other uncertainty mechanisms

Cyber resilience

- 4.1. Our baseline plan meets the expectations of our stakeholders by improving the resilience of our network to ever evolving and more frequent forms of cyber-attack. The network and Information Systems (NIS) Regulations of 2018 were introduced by the government to increase the overall security and resilience of Operators of Essential Services (OES), such as WPD. However, it is recognised that as our networks become increasingly data-enabled, the requirements for delivery of a cyber resilient network will continue to evolve over time.
- 4.2. In addition to the baseline expenditure requested in our plan, and in line with Ofgem proposals, we expect funding for the changing requirements of cyber needs to be covered by the following mechanisms:
 - IT baseline allowances will be subject to the Totex Incentive Mechanism (TIM),
 - OT baseline allowances will be subject to UIOLI (Use-it-or-lose- it). If DNOs overspend on UIOLI it is not covered by the TIM, i.e. DNO funds it themselves entirely.
 - There will be outcome based Price Control Deliverables (PCDs) for both cyber resilience IT and OT.
 - There will be a mid-period reopener mechanism for cyber resilience activities; new activities, new risks and threats, new statutory or regulatory requirements.
- 4.3. We will work with Ofgem through the determinations process to clarify the process, timelines, and granularity of Ofgem's assessment process.

Other reopener mechanisms

- 4.4. WPD also expects to have access to the following other re-opener mechanisms in RIIO-ED2 which were outlined by Ofgem in the Sector Specific Methodology Decisions (SSMD):
 - **Net zero reopener** – Ofgem proposed to include a broad scoped RIIO-ED2 re-opener mechanism to provide a means to amend the price control in response to the meeting of the net zero carbon targets that have an effect on the costs and outputs of network licensees not otherwise captured by any other RIIO-ED2 mechanism. The mechanism could be used by Ofgem at any time throughout RIIO-ED2, subject to a materiality threshold, triggered by a government change in policy, for example decision on the future of decarbonised heating, or the recommendations from the proposed Net Zero Advisory Group.
 - **Streetworks** – Our plan only includes the costs associated with known streetworks schemes that are already in effect. We require the ability to trigger a re-opener where there are significant changes in a local authority's proposals for streetworks or lane rental schemes, which place additional requirements and costs on DNOs. Further detail on our forecasts for streetworks in this plan (including what is and isn't included in our baseline forecast) is included in Supplementary Annex SA-06 Expenditure.
 - **Environmental (Persistent Organic Pollutants (POPs))** – The government has implemented EU legislation that requires the removal of persistent organic pollutants from electrical equipment, mainly affecting ground mounted and pole mounted transformers. The industry has been working collaboratively to determine the actions to take. Ground mounted transformers can be tested and oil changes carried out and we have included costs forecasts for this. Pole mounted transformers are more difficult to test and

replacement is necessary to remove the POPs. The industry has developed a process which is identifying the cohorts that are affected, but the information is continually evolving as more items are removed from the network and tested. We have forecast activity on pole mounted transformers based upon data in October 2021 with replacements proposed in the remainder of RIIO-ED1 and RIIO-ED2. The final volumes that will be replaced by 2025 are likely to change and therefore there is a need for an uncertainty mechanism that adjusts allowances in line with the volumes of activity carried out.

- **Environmental (SF₆)** – We are targeting reductions to SF₆ leaks from equipment as part of our business plan commitments and looking at alternative insulation materials as part of our innovation programme. One of the benefits of SF₆ is that it enables switchgear to have a small footprint, but alternatives are likely to be bigger units. These alternatives are likely to be more expensive and have a consequential impact on the associated civil costs. We have not included any of these extra costs in the business plan. One of the areas of potential legislative change relates to the prohibition of SF₆ gas. If this happens then there will be an impact on switchgear costs that will need additional funding to be provided via an uncertainty mechanism.
- **Environmental (other)** - There are a range of other environmental issues currently being discussed across government and other relevant bodies, which could potentially lead to changes in environmental legislation. Examples include a potential change to the Biocides Directive (use of creosote) and the withdrawal of the Regulatory Position Statements (RPS) 211, which applies to businesses who deal with excavated waste from utilities works. All of these could lead to significant additional costs not captured by our current Business Plan proposals. We consider any changes to relevant environmental legislation should be covered by re-opener to provide allowances for any additional statutory requirements.
- **Coordinated Adjustment Mechanism (CAM)** – Ofgem proposed this whole system re-opener, to enable more coordination between network companies to maximise benefit across the whole energy system. The proposed annual reopener enables outputs and associated revenues to be reallocated from one licensee's price control to another. WPD expects this to be triggered where there is a transfer of required outputs in RIIO-ED2.
- **Physical Site Security Upgrades (PSUP)** - As per Ofgem's proposals for RIIO-T2 and GD2 we propose an uncertainty mechanism be included limited to PSUP-related investments due to changes to government policy and/or the Critical National Infrastructure (CNI) list. We have included no expenditure in our baseline forecast for this.
- **Rail electrification** – Ofgem proposes to retain the RIIO-ED1 reopener that allows DNOs to recover the costs of diverting electricity lines, as a result of Network Rail's electrification programme. No rail electrification programme is currently included in our baseline plans, but we have identified some potential costs in the East Midlands should the government give the go ahead to extend the Midland Main Line electrification beyond Market Harborough. We now await further developments after the government's announcement on 18th November 2021 for its 'Integrated Rail Plan for the North and Midlands' that recommends completing the electrification of the Midland Main Line, bringing fully-electric services to Leicester, Derby, Nottingham and Sheffield. This electrification work spans across the East Midlands licence area and so we will reconsider the cost impact of any changes that affect our network. Therefore we expect to be using the reopener mechanism once further details on timescales are known and also for any similar programmes that may arise in our regions.
- **Electricity System Restoration (Black Start) (ESR)** – Ofgem proposed a reopener to cover the costs of workload changes in response to changes in the mandatory resilience

period or additional activities that may arise from new obligations once the new ESR standard is in place. We have not included any costs attributed to ESR in our baseline forecast as implementation details are not finalised, but we do expect to incur additional costs and support the policy for a reopener to accommodate these.

Other uncertainty mechanisms

4.5. WPD anticipates utilising the following uncertainty mechanisms:

- **Indexation on real price effects** – Ofgem proposed in the SSMD that RPEs would be indexed for RIIO-ED2. Our proposals on how this would work with our requested Totex proposals is set out in Supplementary Annex SA-06 Expenditure.
- **Other indexation** – The other significant new indexing proposal for RIIO-ED2 is on the indexing of key financial parameters. The Cost of Debt was indexed in RIIO-ED1. Ofgem proposes the Cost of Equity will also be indexed in RIIO-ED2.
- **Pass through** – Ofgem determined a number of cost items for RIIO-ED1 that were pass through costs as they were outside the DNOs control. These included Ofgem licence fee costs, business rates, transmission connection point charges, smart meter communication licence and IT costs, ring-fence costs and costs associated with supplier bad debt. It is anticipated that these costs, which remain outside our sphere of influence, will continue as pass through costs in RIIO-ED2.

4.6. In addition to these known uncertainty mechanisms, in its SSMD, Ofgem indicated there may be a requirement for further mechanisms, potentially covering the following areas:

- **Distribution System Operator (DSO)** - We have developed our Business Plan on the premise that WPD will continue to operate as a single company covering both DNO and DSO activities, with strict separation protocols but enabling the delivery of our outputs in the most efficient way. Any changes to existing DSO governance arrangements, which could require further separation of functions, systems and/or data would likely incur higher costs that have not been factored into our plan. If Ofgem proposes any changes to the existing licence arrangements for DSO then we agree an uncertainty mechanism should be included.
- **Data and digitalisation** - As we progress through RIIO-ED2 we expect the requirements of our stakeholders to evolve, resulting in additional requirements for data provision from our networks. Our Business Plan recognises a large element of this change but as proposed by Ofgem in the SSMD, should there be significant changes in the data or digital requirements of the DNOs, we consider this should be covered by an uncertainty mechanism in RIIO-ED2.

Access Significant Code Review (SCR)

4.7. Ofgem published its minded-to position on the Access SCR on 30 June 2021. We have reviewed Ofgem's June publication and considered the proposed policy changes which are due to come into effect at the start of RIIO-ED2. Since publishing the Access SCR minded-to decision Ofgem has also published a consultation on the removal of the DUoS element of the SCR. Therefore, there remains significant uncertainty on the implications of the proposed policy changes. Ofgem has also indicated that the decision for the network access elements of the SCR, which were due to be published in December 2021, will now be published in the first quarter of 2022.

- 4.8. In light of the evolving position Ofgem set out some assumptions for DNOs to consider for inclusion in their Totex proposals within the RIIO-ED2 plans. Ofgem's policy team has indicated they will reflect on the information provided by the DNOs in their plans to inform their next steps in the policy development.
- 4.9. WPD considers the most likely impact of the proposed changes will result in an additional £306 million of investment in RIIO-ED2, on top of the WPD Best View presented in this plan. The majority of these additional costs are based on the extra volume of activity we would be completing associated with Active Network Management (ANM) transition to firmer connections, additional connections volumes and the impact of the shallower charges which would impact the DNO's costs.
- 4.10. Our low case assessment of the impact is £174 million in RIIO-ED2, purely as a result of the change of funding from customer contributions to DUoS.
- 4.11. Our high case assessment of the proposals identifies an additional potential £606 million of investment in RIIO-ED2.
- 4.12. Further detail on the assumptions behind these costings are included in Supplementary SA-06a Load related expenditure.
- 4.13. We consider the additional activity being driven by ANM transition and the additional costs associated with the Ofgem proposed funding change could be funded under our proposed Load Related Expenditure UMs. However, in light of the range of potential policy outcomes at this stage, we support Ofgem's proposal for an Access SCR uncertainty mechanism under which we would be able to recover the additional costs incurred which could not be picked up by our RIIO-ED2 proposed volume drivers.

Bespoke price control deliverables (PCDs)

- 4.14. WPD is proposing the use of two bespoke PCDs in RIIO-ED2. The costs associated with these PCDs are included in our proposed RIIO-ED2 Totex baseline.

Conversion of commercial fleet to non-carbon

- 4.15. We are proposing to spend an additional £64 million in RIIO-ED2 to replace 89% of our small vehicle fleet with non-carbon alternatives. This will lower our annual transport emissions by 10,050 tCO₂e (tonnes of carbon dioxide equivalent).
- 4.16. The delivery of this programme is dependent upon suitable vehicles becoming available. Since there is a risk that the volume could be lower we are proposing a PCD to refund allowances not used.

Modernising WPD's radio based telecoms system

- 4.17. We are proposing to spend £45 million in RIIO-ED2 to replace our existing telecoms system with a Private Long Term Evolution (LTE) network which provides the capability to monitor the entire distribution network from 132kV to LV and capture all the data required to support the SMART roll out.
- 4.18. The opportunity to make this change is subject to agreements with Ofcom and should there be any delays to granting permission the programme could be delayed. Since there is a risk of not completing the programme we propose a PCD to refund allowances not used.

5. Adapting to change

- 5.1. The UK is experiencing a period of significant change as it works towards a net zero carbon future. As an essential player in net zero, we need to react quickly to implement the appropriate solutions as electricity demand changes, and expected increases in heat pumps and electric vehicles materialise. We also need to react to unforeseen circumstances and ensure that we maintain the excellent service that our customers expect.

Track record

- 5.2. We have a proven track record of adapting to change and unforeseen challenges during RIIO-ED1. In that time, we reacted effectively to a series of changing external demands. These included:
- Responding to high levels of distributed generation enquiries (especially for large solar farms).
 - Developing Distribution System Operator (DSO) capabilities and becoming the first Distribution Network Operator (DNO) to publish a fully costed DSO plan.
 - Being the first to publish Distribution Future Energy Scenario (DFES) documents to forecast the regional distribution of Low Carbon Technologies (LCTs).
 - Being the first to commit to a six monthly procurement cycle for flexibility services.
 - Implementing processes for the removal of transformers potentially contaminated with polychlorinated biphenyls (PCBs) to comply with revised environmental directives.
 - Establishing the world's largest EV monitoring scheme – Electric Nation – providing significant insight in the charging behaviours of EV owners.
- 5.3. None of these challenges could have been identified at the start of RIIO-ED1 and clearly demonstrate WPD's ability to adapt, react, and, in many cases, be the first to deliver change.

Responding to the Covid-19 pandemic

- 5.4. There is no better example of our ability to adapt than our response to the Covid-19 pandemic. From March 2020, the Covid-19 pandemic had a significant impact on our customers, staff and working practices. We adapted quickly to minimise the impact on our operations, maintaining exceptional customer service while operating responsibly and safely.
- 5.5. During the first national lockdown, there was a brief pause in customer-driven works, to protect customers and staff from unnecessary social contact, particularly as much of this work involved entering customers' property. Essential work on restoring power cuts and cutting trees on the network continued throughout.
- 5.6. In response to the financial hardship experienced by some of our customers, we launched our £1 million 'Community Matters' fund to support vulnerable customer affected by the outbreak. We also participated in the Supplier Payment deferral scheme, enabling non-investment credit rated electricity suppliers to defer payments during the height of the pandemic
- 5.7. During the pandemic, within less than a month we had ramped up from 100 to 2,000 home workers with robust IT infrastructure to ensure no loss of productivity or increase in cyber risk. The number of remote access servers in use has also increased from two to four, to support home working. Video conferencing was made available on desktop, PCs and laptops to enable internal meetings and presentations to take place remotely.

- 5.8.** Since the start of the pandemic, we have continued to engage extensively with our stakeholders, quickly adapting our approach, for instance, by using online workshops to deliver sessions. This did not lead to any dip in attendance rates - if anything, we saw increased stakeholder representation in some instances, from people who found it easier to participate remotely than attend in person. By continuing to engage regularly throughout the pandemic, and always including questions on the impact of Covid-19 on stakeholder priorities, we have been able to build a robust, up to date understanding of stakeholder views. This has been vital as the impact of the pandemic has evolved quickly, and we now consider the enduring impact.
- 5.9.** The learning from the Covid-19 pandemic will be used to prepare us for any similar event that may occur in RIIO-ED2, with protocols that can be put into place quickly and effectively if needed.

6. Being adaptable in RIIO-ED2

- 6.1. As we enter RIIO-ED2, we will be operating in an even more dynamic energy sector, making our ability to respond quickly to challenges even more critical. This will be particularly relevant to the unpredictable growth of LCTs but also to other events such as changes to environmental legislation or post-COVID requirements.
- 6.2. To help achieve this, WPD has created a simple model (see figure SA-07.14) to show how we will rapidly adapt to meet the changing needs of our stakeholders and the energy market.

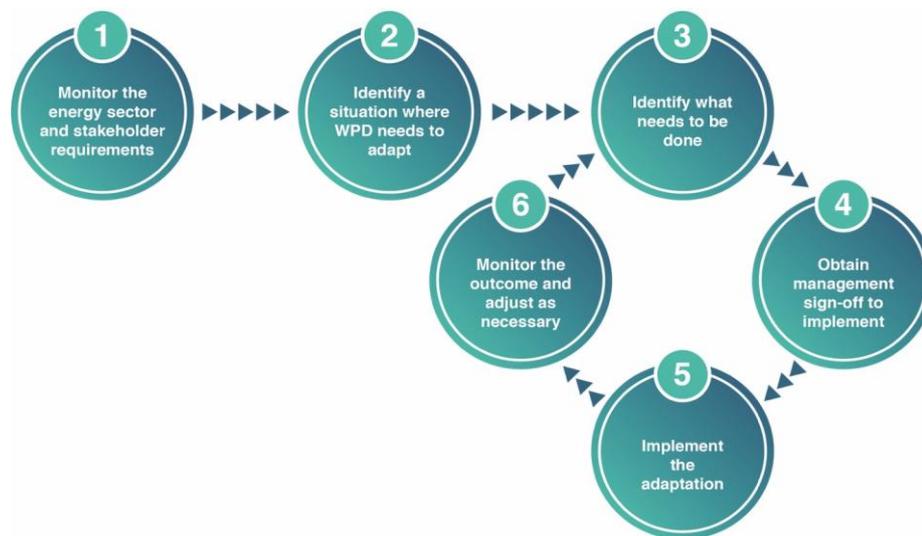


Figure SA-07.14 WPD's adaptive process

1. Monitor the energy sector and stakeholder requirements.
 - We will ensure we are engaged with our stakeholders to understand the changes needed to meet their expectations. This will involve an extensive programme of generic and bespoke stakeholder engagement including annual engagement with local authorities, annual stakeholder workshops, bespoke sessions with connections customers and community energy groups, liaison with government, the regulator and industry groups. We will also need to monitor the outputs from experts across the industry to ensure we can identify emerging trends. WPD already engages extensively in all of these activities and will continue to do so throughout RIIO-ED2.
2. Identify a situation where WPD needs to adapt.
 - Staff must be empowered to identify changes which will lead to improvements at WPD. To do this, they must feel able to make a recommendation and see it through. We believe this culture already exists at WPD and that it is supported by our purpose and values.
3. Identify what needs to be done.
 - To develop the best solutions to meet the needs of a rapidly changing market, we must continue to recruit and retain the best and most experienced staff. These staff are crucial

to enable WPD to adapt and respond effectively to the challenges ahead. This commitment to our staff will continue to be critical as we progress through RIIO-ED2.

4. Obtain management sign-off to implement.

- At WPD, there are only two levels of management between the executive and junior management which means decisions can be made more quickly. All staff have the power to propose changes and solutions which can be actioned within departments, or escalated rapidly to senior level where there are wider implications for the business. The speed of this sign-off is key to our ability to respond quickly and appropriately to changing demands.

5. Implement the adaptation.

- To maximise effectiveness, it is vital that adaptations are actioned as quickly as possible. The consequences of these changes (such as those made to data collection and reporting) should also be addressed at the same time. At WPD, we pride ourselves on adapting to, and delivering on, our stakeholders' expectations which is why we are confident we can continue to implement changes quickly and efficiently during RIIO-ED2.

6. Monitor the outcome and adjust as necessary

- We will continue to engage extensively with stakeholders and to monitor the effectiveness of changes to ensure we've delivered the desired outcomes for our stakeholders. Where processes need to be revised, alternative solutions will be developed as quickly as possible to ensure we create maximum benefit at the earliest opportunity.

6.3. These key steps are already in place at WPD. As some parts of the process are informal, we are working to create a more recognised and transparent model that can be used for successful adaptations across WPD. We are confident that we have a culture and capacity that enables us to adapt quickly in response to emerging issues. As an 'enabler' we develop and implement solutions quickly and will continue to keep abreast of changing stakeholder requirements to make sure we uphold our reputation for adapting effectively and efficiently to change.

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