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Decision

RIIO-ED2 Sector Specific Methodology Decision: Annex 3 Finance			
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The next electricity distribution price control (RIIO-ED2) will start on 1 April 2023. This is our decision on the methodology we will use to set this price control.

This document sets out our decisions for the finance proposals in relation to RIIO-ED2. This document is an Annex to the RIIO-ED2 Methodology Decision Overview document, which was published on 17 December 2020, and should be read alongside it.

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1. Introduction

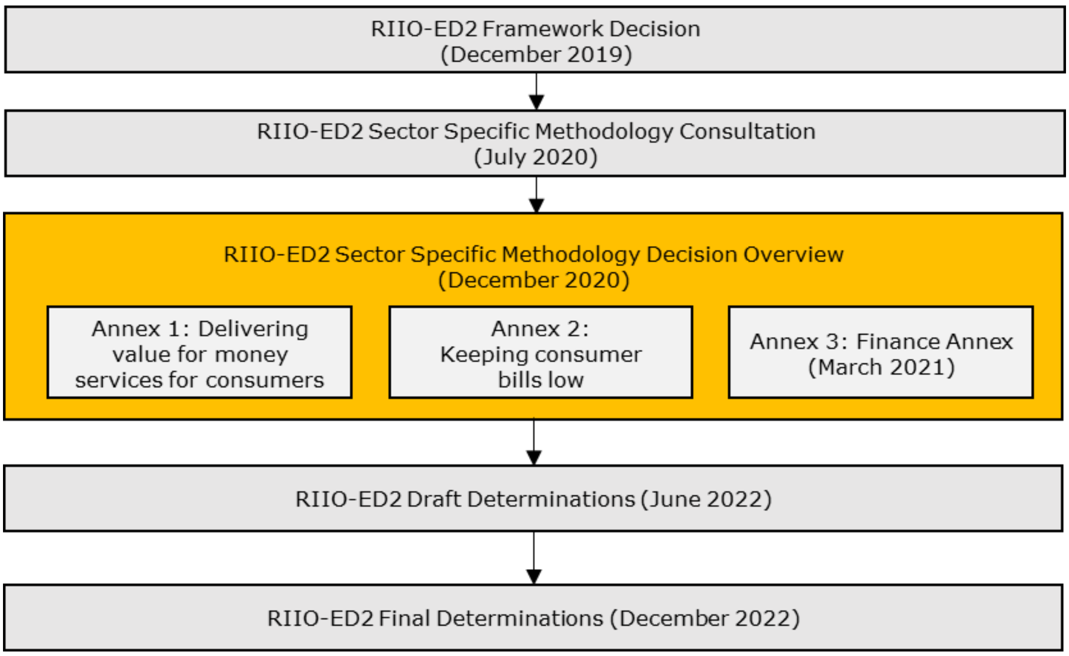
1.1 In July 2020, we published our Sector Specific Methodology Consultation (SSMC) which set out our proposed approach to the RIIO-ED2 price control. In the finance annex to that Consultation, we set out our finance proposals for the network company price controls that are due to begin on 1st April 2023 (together referred to as RIIO-ED2).

1.2 This document forms part of our decision on the sector methodology that we will apply to the RIIO-ED2 price control.

1.3 We have received 19 consultancy reports on finance related issues. With the exception of 1 report addressed in Section 2 (Allowed return on debt), these reports have previously been addressed in the RIIO-2 gas distribution and gas and electricity transmission (GD&T2) consultations and decisions, as referred to in Appendix 3.

1.4 Figure 1 sets out how this document fits in with the wider suite of RIIO-ED2 Sector Specific Methodology Decisions (SSMD) and with the other RIIO-ED2 documents.

Figure 1 RIIO-ED2 Methodology Decision documents map



2. Allowed return on debt

The cost of debt is a significant component of allowed returns and the cost of network services to consumers.

In this section we summarise our July 2020 proposals, the consultation responses, our analysis and response to these, and our sector-specific decisions.

Introduction

2.1 The cost of debt allowance is an estimation of the return debt investors expect from an efficiently run company (including both embedded debt raised prior to the price control period and new debt raised during the price control period). The current RIIO-1 price control sets an allowance for debt costs using a published benchmark index of bond yields. We assume that our notional company can borrow at a rate consistent with this benchmark index. We refer to this approach as full indexation. We consider that it has been successful in reducing forecast errors compared to previous approaches, thus reducing consumer bills.

2.2 In the RIIO-ED2 Framework Decision,[1] we confirmed that we would retain full debt indexation for RIIO-ED2 in line with RIIO-T2 and GD2. We said that we could see no compelling reasons to reach different conclusions for the ED sector,[2] and that full indexation aligns with the principles set out in the Framework Consultation in March 2018.[3]

2.3 As regards the index used and how it is calibrated, in RIIO-ED1, the debt allowance is calculated using a trailing average of bond market indicators (using daily data for the unweighted average of iBoxx A and BBB rated non-financial corporate 10+ year bond yields, deflated by forward inflation implied in gilt yields). The length of the trailing average lookback period extends by one year each year from a 10-year to a 20-year trailing average. The averaging period starts on 1 November 2004 and ends on 31 October 2014 for 2015-16 (10 years) and the end of the averaging period will increase by one year each year, (i.e. the length of the lookback period increases each year of the price control), until the

[1] RIIO-ED2 Framework Decision, January 2020, 2.127
[2] Ibid, 2.128-2.129
[3] RIIO-2 Framework Consultation, March 2018, 7.11

period length reaches 20 years (which, if continued, would extend into RIIO-ED2).[4]

2.4 Western Power Distribution (WPD) are the exception in RIIO-ED1 as they were fast tracked and were therefore given the same index calibration as the electricity transmission, gas transmission and gas distribution sectors were for RIIO-1, which was a 10-year trailing average of historical rates. The majority of Distribution Network Operators (DNOs) therefore currently have a different debt allowance index calibration to the electricity transmission, gas transmission and gas distribution sectors in RIIO-1.

Our Decision

Purpose	To provide a reasonable allowance for debt costs that updates with changes in market conditions.
Decision	To approach calibrating the index for setting debt allowances with reference to average ED debt costs and to complete this calibration at Final Determinations. To assess the appropriateness of the iBoxx GBP Utilities 10yr+ index at Draft Determinations and Final Determinations stages. To decide on an additional cost of borrowing allowance at Final Determinations. To deflate nominal 'all in' yields (iBoxx yields plus any additional cost of borrowing allowance) for each date of the trailing average to CPIH real yields using the year 5 OBR forecast for CPI available for each date, using the Fisher equation. The trailing average of the resulting real yields provides the CPIH real allowed return on debt.

Our Consultation Position

2.5 As for the GD&T sectors, for RIIO-ED2 we proposed an approach to calibrating the index that involves comparing forecast pooled network debt costs to potential calibration options.

2.6 We stated that we will require more information from the network companies to estimate the appropriate allowances for RIIO-ED2, including information on the network companies' plans for investment in the networks. We said that after we

[4] RIIO-ED1: Final Determinations, Nov 2014

have business plan information, we will assess expected sector debt costs against expected allowances.

2.7 In terms of index selection, we proposed using the iBoxx GBP Utilities 10yr+ index (ISIN reference DE0005996532) rather than the indices used in RIIO-1. This was based on our view that this provides a better match to network company debt costs and that the rationale in relation to this decision for the GD&T sectors[5] also applies for RIIO-ED2 because the analysis comparing issuance credit spreads to iBoxx index credit spreads included ED company issuance.

2.8 We set out an estimate of additional cost of borrowing of 17bps[6] but stated that we would keep this under review until after business plan submissions.

2.9 We proposed converting nominal iBoxx GBP Utilities 10yr+ index yields to CPIH real allowances using a long-term CPIH forecast and the Fisher equation.[7] We considered that the rationale set out in the GD&T Draft Determinations[8] also applies to RIIO-ED2 as we do not consider there to be any sector-specific reasons to apply a different conversion methodology.

2.10 As there are no long-term forecasts of CPIH available, we proposed using the OBR year 5 forecast of CPI (as a reasonable proxy for CPIH) to deflate nominal index yields to a CPIH real allowance.

2.11 In relation to the cost of debt, we asked the following five questions:

- FQ1. Do you agree with our proposal to use the iBoxx Utilities 10yr+ index rather than the indices used in RIIO-1?
- FQ2. With reference to paragraph 2.8 (of the SSMC), do you have a view on what debt allowance calibration should be used for business plan working assumption purposes, and why?
- FQ3. Do you have any evidence to suggest ED networks should or should not have a debt allowance that has a different calibration to GD&T networks?
- FQ4. Do you have any views on our analysis of additional costs of borrowing that may not be captured by an index of bond yields?

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[5] RIIO-2 Draft Determinations – Finance Annex, July 2020, page 14, para 2.8-2.17 and subsequently RIIO-2 Final Determinations - Finance Annex, December 2020, page 12, para 2.16-2.18
[6] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance, July 2020, Table 1
[7] CPIH real = (1+nominal yield %)/ (1+CPIH inflation assumption %) - 1
[8] RIIO-2 Draft Determinations - Finance Annex, July 2020, page 29, para 2.74-2.77

- FQ5. Do you agree with our proposal to use the longest-term OBR forecast for CPI to deflate nominal index yields to a real CPIH allowance and to switch to using OBR CPIH forecasts if these become available?

Index Selection

Responses to our consultation

2.12 Four ED networks[9] and the RIIO-2 Challenge Group expressed concerns with the choice of the iBoxx GBP Utilities 10yr+ index as they were of the view that this could increase the risk (relative to using specifically rated broader indices) of a mismatch between the ratings of companies within the iBoxx Utilities index and the rating of the notional company used in Ofgem's financeability assessment for RIIO-2 over time.

2.13 One ED network continued to express concerns over a “one size fits all” full indexation approach that is calibrated to expected sector debt costs. They suggested a modified approach that would provide a pass through for individual licensee actual embedded debt costs, retaining incentivisation for new debt only. If full indexation is to be used, then they considered the choice of reference index is of less importance than the trailing average period used.

2.14 However, one ED network, one supplier and Citizen’s Advice agreed with the use of the iBoxx GBP Utilities 10yr+ index. The network did not consider it especially financially material which index is used if the calibration methodology was to broadly match expected average sector debt costs. The supplier pointed out various advantages of using the Utilities index rather than the broader corporate bond indices that were used in RIIO-1.

Reasons for our Decision

2.15 We consider the risk of the iBoxx GBP Utilities 10+ index constituent ratings diverging from the notional company rating to be lower (to both networks and consumers) than the risk of the A/BBB combined index diverging from the average borrowing costs of networks.

[9] When describing consultation responses, we refer to “networks” to mean a network group unless otherwise stated, so that there would be a maximum of 6 ED networks or network group responses

2.16 We consider broadly matching the average borrowing costs of networks by using an investment grade index that is expected to be more representative of network borrowing costs is more important than precisely matching a theoretical notional company rating (which itself involves some judgement).

2.17 We note evidence submitted in response to a similar question asked at GD&T Draft Determinations that indicates the average rating of the constituents of the Utilities index has fallen over time and the suggestion that it would be prudent to monitor the average rating of the index over time. We will therefore monitor this information and reassess at Draft and Final Determinations stages whether the iBoxx GBP Utilities 10yr+ index remains appropriate.

2.18 In response to the suggestion for a modified approach to provide a pass through of embedded debt costs and indexation for new debt costs, we remain of the view that setting the cost of embedded debt allowance based on individual company actual debt costs would dilute incentives to issue debt efficiently and prudently. This is because there would effectively be no long-term financial reward to networks for doing so, and no penalty for failing to do so because at each price control reset new debt from that price control would become embedded debt when assessed at the next price control.

Debt Allowance Calibration

Responses to our Consultation

2.19 Most ED networks suggested the 10-20yr extending trailing average used for ED1 would be the most logical starting point for an ED2 working assumption, with some also mentioning that the trailing average calibration should broadly match the maturity profile of sector debt. However, one network company suggested it would be more appropriate to work with network companies to develop a working assumption during the course of late 2020.

2.20 ED networks also suggested that it is likely to be appropriate for the ED sector to have a different trailing average calibration to the GD&T sectors due to differences in the embedded debt profile of the ED sector. One network suggested that ED networks have a higher proportion of older, and higher rate, debt than GD&T networks because ED networks have older debt than GD networks (which have been in existence for a shorter period) and lower RAV growth than T networks (which therefore have a higher proportion of RAV financed more recently at lower rates).

2.21 One supplier suggested that the Draft Determinations for the GD&T sectors would be the appropriate starting point for an ED working assumption.

2.22 The RIIO-2 Challenge Group expressed a preference for "notional assumptions which would remove the need for calibration" as they considered this approach may be less conservative and less complex. They also did not consider there to be any differences in systematic risk or borrowing costs that should lead to a different calibration for the ED sector compared to the GD&T networks.

Reasons for our Decision

2.23 We do not consider it appropriate to set a debt allowance based on a trailing average broadly equalling the weighted average maturity of sector debt for the following reasons:

- regulated companies' RAVs and therefore debt books have been growing over time, so a trailing average that is not calibrated or weighted appropriately would not be accurate.
- regulated companies have benefitted from a large amount of UK taxpayer subsidised European Investment Bank (EIB) loans (which have been provided below commercial market rates because it is a non-profit maximising supranational that is funded by contributions from member countries, which, until Brexit, included 16% subscribed capital from the UK)
- companies can issue a mix of short term and ultra-long term debt (a so-called 'barbell issuance strategy'), which with the generally prevailing yield curve shape in the UK could be expected to provide a lower combined yield than issuing only 15-20yr debt
- companies can adjust the timing of issuance in response to market events
- companies can and have issued some floating rate debt so applying a historical fixed rate to the entire debt book does not capture the fact that a proportion of debt is currently attracting much lower rates of interest.

2.24 The above reasons are consistent with those set out for GD&T.[10] We consider these reasons are also valid for the ED sector because they all also apply to ED companies; ED company RAVs have been growing, ED companies have used EIB

[10] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 15, para 2.30

debt, ED companies can issue a mix of maturities and adjust the timing of issuance, and ED companies have issued/borrowed some floating rate debt.

2.25 The above points also lead us to believe that it remains appropriate to calibrate the allowance according to actual average debt costs rather than broad assumptions that would be required for the more conceptual approach that the RIIO-2 Challenge Group suggest. We believe that not taking the time and effort to calibrate in this way risks systematically over- or under-compensating networks on average. We do not consider this would be in the best interests of consumers as it would lead to consumers either paying more than an efficient average cost of borrowing or under-compensating companies on average, which may lead to financeability constraints and push up network borrowing costs (and subsequent cost to consumers) over time.

2.26 However, we believe that a cross check based on an appropriately defined conceptual approach has some value. Therefore, in line with our GD&T Final Determinations, we intend to include such a cross check for the debt allowance in ED Draft and Final Determinations.

2.27 We continue to be of the view that we can only accurately assess the appropriate debt calibration for the ED sector following business plan submission when we will have further detail on RIIO-ED2 investment profiles and therefore the likely RAV growth and borrowing requirements of notional ED networks. At Draft Determinations stage we plan to check whether expected ED debt costs would broadly match a proposed calibration or whether there is any material divergence.

2.28 However, business plans do also require inputs for cost of capital allowances and it is preferable that these are consistent across networks rather than leaving this assumption to individual networks, which would make it more difficult for stakeholders to compare plans on a like-for-like basis. We have therefore provided working assumptions for this purpose only.

Additional Costs of Borrowing

Responses to our Consultation

2.29 ED networks broadly agreed that an additional cost of borrowing should be added to bond index yields. However, they suggested that the 17bps additional allowance proposed in the SSMC was too low because it did not provide a sufficient cost of carry allowance, did not provide for the additional costs of issuing CPI/CPIH-linked debt and/or did not provide for a new issue premium.

2.30 Networks referred to the work of NERA[11] on behalf of the ENA in support of their arguments for higher allowances for additional costs of borrowing.

2.31 The RIIO-2 Challenge Group and Citizens Advice considered 17bps allowance for additional costs of borrowing was overly generous.

2.32 ENWL submitted a report by Frontier Economics,[12] which suggested that smaller networks faced a premium on debt costs because they either had to issue in smaller sizes, attracting illiquidity premiums and fixed costs that make relative costs higher for smaller issuances, or faced greater cost of carry when issuing less frequently. Frontier Economics suggested an explicit additional allowance over the sector debt allowance in the range of 18-20 bps for smaller companies.

Reasons for our Decision

2.33 In RIIO-1, Ofgem provided analysis which suggested that network companies were consistently able to issue debt at rates below the iBoxx benchmark (the "halo effect").[13] This halo effect was considered to be large enough to more than offset estimated transaction and liquidity costs associated with raising debt (estimated at 20bps). A separate transaction and liquidity cost allowance was therefore not required.

2.34 One option could be to use a working assumption of a 18-20 year trailing average (i.e. the continuation of the RIIO-1 calibration) with no additional cost of borrowing allowance, as was anticipated at RIIO-ED1. This would result in a forecast debt allowance for RIIO-ED2 of 2.05%[14] on average.

2.35 However, as discussed in GD&T Draft Determinations finance annex,[15] we prefer the transparency of considering a yield allowance and an additional cost of borrowing allowance separately and calculating a calibration based on these transparent elements of the allowance. Therefore, if the index trailing average

[11] NERA 'Review of Ofgem's DD Additional costs of borrowing, and deflating nominal iboxx' Prepared for ENA September 2020
[12] "Annex 5: Frontier Economics Report for ENWL: Transaction cost premium for infrequent debt issuers September 2020", contained in zip file "Sector Specific Consultation Responses" on RIIO-ED2 Sector Specific Methodology Consultation - Finance Annex, July 2020
[13] RIIO-ED1: Draft determinations - Financial Issues, July 2014, page 14, para 2.57-2.63
[14] Using the Utilities GBP 10yr+ index, or 2.15% using the combined GBP 10yr + non financial A and BBB indices
[15] RIIO-2 Draft Determinations – Finance Annex, July 2020, page 28, para 2.68

calibration is expected to match the yield costs of debt then we consider it appropriate to separately allow for additional costs of borrowing. We therefore consider it relevant to consider the assessment of the quantum of these costs at this stage.

2.36 NERA's most recent report (from September 2020) relating to additional costs of borrowing was considered in detail by Ofgem for GD&T Final Determinations.[16] We invite stakeholders to refer to our consideration of and responses to the NERA report in the GD&T Final Determinations for further detail. In summary, we find the evidence submitted by NERA on new issue premium to be unreliable, we do not consider that NERA's estimate of cost of carry is based on robust evidence, and we do not agree with all of the points made on CPI/CPIH issuance costs and/or basis mitigation.

2.37 However, our conclusion from the analysis of this most recent NERA report and other supporting evidence (submitted by GD&T networks in relation to cost of carry and CPIH debt costs) on additional costs of borrowing for GD&T networks was that it was appropriate to increase our allowance from 17bps to 25bps. As a result, we consider it appropriate to use this as a working assumption for ED business plan purposes as we consider it a reasonable assumption at this stage that ED companies would face similar additional costs of borrowing as GD&T companies. However, this assumption will be reviewed following business plan and business plan data template submissions and will only be finally determined at Final Determinations stage in light of evidence available at that time.

2.38 It should be noted that we only consider adding additional costs of borrowing to the index yields to be appropriate if the calibration of the index (including the trailing average period) accurately reflects the average expected yield costs of networks. In other words, that the allowances we make for additional costs of borrowing are linked to the results of the calibration exercise.

2.39 As we have not yet performed this detailed calibration analysis, we do not yet know whether a 18 to 20-year trailing average of iBoxx yields (i.e. the continuation of the RIIO-1 calibration) would be expected to under-compensate, over-compensate or broadly match ED yield costs and therefore whether it would be appropriate to provide the additional cost of borrowing allowance. Economically, using current data for iBoxx yields and implied forward interest

[16] RIIO-2 Final Determinations - Finance Annex, December 2020, see Appendix 3, Consultancy report 18 in particular

rates as at 29th January 2021, a calibration of a 18-20 year trailing average with no additional costs of borrowing allowance or a 17-year trailing average plus 25bps (0.25%) for additional costs of borrowing are similar (2.05%[17] vs 2.09% average respectively over the RIIO-ED2 period). However, we prefer the transparency of a yield allowance plus an additional cost of borrowing allowance rather than the calibration of the trailing average period subsuming an assumption for additional costs of borrowing. Therefore, we prefer to characterise the working assumption for business plan purposes as a yield allowance plus an additional cost of borrowing allowance.

2.40 We note that Frontier Economics' estimate for the range of additional costs faced by smaller networks (by RAV size) is much higher than the estimates provided by smaller GD networks (18-20bps compared to 6bps estimated by two smaller GDNs). We are of the view that Frontier may have focussed on a relatively limited analysis of bond market examples. The GDN evidence submitted included consideration of bond, bank, private placements, and derivatives.

2.41 We will consider this again at Draft Determinations stage in light of evidence of whether or not smaller ED networks have faced higher costs for embedded debt and/or evidence of whether they are expected to face higher costs for new debt. We have not yet completed this detailed work and would expect to do so after submission of business plans. Therefore, we do not suggest a small company/infrequent issuer premium is included in working assumptions for business plan purposes.

Deflating the nominal iBoxx

Responses to our Consultation

2.42 Some ED networks, the RIIO-2 Challenge Group and Citizens Advice agreed with our proposed approach to deflating the nominal iBoxx to provide a CPIH real allowance for debt.

2.43 Some ED network companies suggested that outturn inflation should be used to deflate the index (instead of a forecast) or that if a forecast is used then outturn should be used as a true up.

[17] Using the Utilities GBP 10yr+ index, or 2.15% using the combined GBP 10yr + non-financial A and BBB indices.

Reasons for our Decision

2.44 We do not believe outturn inflation data is a good indicator of the long-term future inflation expectations that are embedded in the long-term debt constituents of the iBoxx indices used because outturn inflation data is backwards looking but bond yields include forward-looking expectations. We continue to believe that a long-term estimate of inflation expectations is more appropriate for deflating an index based on long-term debt rates. We consider that the rationale set out in the GD&T Draft Determinations[18] also applies to RIIO-ED2 as we do not consider there to be any sector-specific reasons to apply a different conversion methodology. Therefore, we have decided to use a long-term OBR forecast for CPI to deflate nominal index yields to CPIH real allowances.

Working Assumption for Business Plans

2.45 Without prejudice to the eventual calibration of the index at Final Determinations, which will be based on scrutiny of the full information available at that time, we suggest that the networks use a working assumption based, illustratively, on a 17-year trailing average of iBoxx GBP Utilities 10yr+ index yields plus 25bps allowance for additional costs of borrowing. This working assumption:

- is currently economically similar to a 18-20 year trailing average with no additional cost of borrowing allowance (i.e. the continuation of the RIIO-1 calibration)
- is consistent with the last year of the RIIO-ED1 trailing average;
- recognises that in common with RIIO-1 there could be valid reasons for why the ED calibration could be different to the GD&T calibration
- uses the GD&T Final Determinations for additional costs of borrowing in the absence of current evidence suggesting these additional costs of borrowing could be different for different sectors
- would lead to some convergence of ED and GD&T trailing average calibrations by the end of RIIO-2.

2.46 This working assumption and the rationale for it does not indicate a methodology decision on this trailing average period and is illustrative and for business plan

[18] RIIO-2 Draft Determinations - Finance Annex, July 2020, page 29, para 2.74- 2.77

purposes only. We have provided a forecast of these figures based on the interest rate and iBoxx data available as at 29th January 2021 in Appendix 1.

3. Allowed return on equity

The cost of equity is a significant component of allowed returns and the cost of network services to consumers.

In the SSMC we sought views from ED stakeholders as to whether the proposed approach for GD&T would equally apply to the ED sector and invited views on how we could best estimate the systematic risk of the ED sector. We set out in this section the consultation responses, our analysis and response to these, and our sector-specific decisions.

Introduction

3.1 We estimate the cost of equity so that price controls reflect the relationship between actual investor risk and investor returns. Given the capital intensive nature of the energy networks, the cost of equity forms a substantial part of the overall price control.

3.2 In the RIIO-ED2 Framework Decision, we set out our decision to set the baseline allowed return on equity using the same methodology as applied to the other RIIO sectors.[19] In the SSMC, we sought views from stakeholders regarding the application of the methodology to the ED2 price control.[20]

3.3 We asked two questions regarding the cost of equity:

- FQ6 In light of the equity methodology we set out in Draft Determinations for GD&T, do you have a view on how implementation could best be applied to the ED sector?
- FQ7 Do you have suggestions on how we could estimate systematic risk for ED2 or any evidence to support a difference between ED and the other RIIO sectors, GD&T?

3.4 We set out below the stakeholder responses received in respect of the three-step methodology, including the relevant parameters, our views on them and our decisions.

[19] RIIO-ED2 Framework Decision, January 2020, page 43, para 2.127
[20] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance, July 2020, page 11, para 3.6

Our Decision

Purpose:	To estimate the allowed return on equity as accurately as possible.
Decision:	To set the Risk-Free Rate, as we did in GD&T Final Determinations, with reference to recent market information as to the yield on index linked gilts. To index annually the Risk-Free Rate used in the allowed return on equity calculation. To calibrate a TMR range at Draft Determinations stage, focussing on long-run average returns while placing due weight on TMR cross-checks. To use a positive debt beta, which will be calibrated at the Draft Determinations stage. To calibrate equity beta based on market evidence at the Draft Determinations stage. To make no distinction, for working assumptions for business plan purposes, as to relative systematic risk between the different energy network sectors. To continue to gather evidence on this point for Draft Determinations. To retain the use of Step 2 cross-checks as relevant evidence regarding the appropriate range of cost of equity for ED2. We have set out the working assumptions for the allowed return on equity in Table 1.

Step 1 The Capital Asset Pricing Model evidence

Risk-Free Rate

Our consultation position

3.5 The Risk-Free Rate is part of the CAPM calculation. We noted that in GD&T we had decided to calculate the Risk-Free Rate using the current yields on long term Index Linked Gilts (ILGs).[21] In the SSMC we sought views on the implementation of the equity three step methodology, as set out in the GD&T Draft Determinations, which included the setting of the Risk-Free Rate parameter.

[21] RIIO-ED2 Sector Specific Methodology Consultation - Finance Annex, July 2020, page 11, para 3.3

Responses to our consultation

3.6 ENWL, SSEPD, UKPN referred us to work by Oxera, prepared for the ENA and submitted by the ENA as part of the CMA re-determination of PR19.[22] Oxera makes two arguments that the use of the 20-year ILG underestimates the Risk-Free Rate. The first is that there is a safety and liquidity premium or "convenience yield" associated with index-linked government bonds and thus the ILG has a required return below the rate of return for the zero-beta asset. The second argument is that the CAPM assumes that the investor can borrow and lend at the Risk-Free Rate, but in fact investors cannot borrow at the ILG rate. Oxera therefore argued that the AAA Corporate Bond yield is a better estimate of the Risk-Free Rate.

3.7 ENWL noted that previous regulatory practice has been to "aim up" from the spot Risk-Free Rate and that Ofgem was not proposing to do this in its Draft Determinations for G&T2.

3.8 Centrica said that generally the methodology proposed in the Draft Determinations for G&T2 was appropriate for ED2.

3.9 Both Citizens Advice and the RIIO-2 Challenge Group supported the use of CAPM but made no specific comments regarding the Risk-Free Rate.

Reason for our decision

3.10 The Risk-Free Rate parameter is common to all CAPM calculations and should not vary between sub sectors. Thus, the logic and methodology we used in GD&T for Final Determinations should be applicable to ED2.

3.11 We have addressed in detail Oxera's points in the GD&T Final Determinations[23] and in our response to the CMA's Provisional Findings in the PR19 re-determinations.[24] We do not think there is a straightforward way to estimate any "convenience yield" effect on ILGs.

[22] The cost of equity for RIIO-2 Q3 2020 update. Oxera. Prepared for Energy Networks Association. 4 September 2020. https://www.northerngasnetworks.co.uk/wp-content/uploads/2020/09/CoE-Oxera.pdf#page=36f Section 3.2.2
[23] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021, Appendix 2, Consultancy Report 6, page 150
[24] Ofgem Response to PR19 Provisional Findings 29 October 2020 (Redacted)

3.12 We are not convinced that the correct method of determining the Risk-Free Rate includes incorporating the UK AAA corporate bond index yield. The index for the UK for these bonds has a very limited number of constituents of uncertain liquidity and includes securitised bonds and other financial sector bonds which we view as not likely to be a reliable indicator of risk-free rates.

3.13 The bonds will have a higher yield due to their relative lack of liquidity. In addition, the index gives a nominal yield which must then be converted into a real yield. To correctly infer a Risk-Free Rate, we would need to estimate an inflation risk premium which is embedded in the yield of nominal bonds.

3.14 In response to Oxera's second argument, regarding borrowing and lending rates of investors, we referred in the GD&T Final Determinations to a report written by Stephen Wright and Robin Mason, two of the authors of the UKRN Cost of Capital Study.[25] It was submitted by Ofwat to the CMA in response to the CMA's PR19 Provisional Findings. We agree with Wright and Mason that it is not appropriate to distinguish between lending and borrowing rates for CAPM without also considering whether marginal investors in regulated utility companies are net lenders or net borrowers. We concluded that the marginal investor was generally a large institutional investor - either a portfolio investor (for quoted utilities) or a private infrastructure fund (for unquoted). These investors would be net lenders by the nature of their activities in making investments in either the debt or equity securities of energy network businesses. Therefore, our decision for ED2 is to calculate the Risk-Free Rate using the current yields on long term government inflation linked bonds, consistent with the approach taken in GD&T Final Determinations. The Risk-Free Rate parameter is common to all CAPM calculations and is set at the same level regardless of which stock or subsector is in consideration. Therefore, a value for Risk-Free Rate set for GD&T, adjusted for market movements since Final Determinations, can also be used for the ED sector.

Indexation of Risk-Free Rate

Our consultation position

3.15 As noted above, in the December 2019 Framework Decision for ED2, we decided to set the baseline allowed return on equity using the same methodology that we use for the GD&T sectors.[26] We had not at that stage ruled out the use of equity

[25] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021, page 28, para 3.14
[26] RIIO-ED2 Sector Specific Methodology Consultation - Finance Annex, July 2020, page 10, para 3.6

indexation for ED2. We sought views in the SSMC on the implementation of the equity methodology in ED2 by reference to the GD&T Draft Determinations. This would include the indexation of the cost of equity to changes in the Risk-Free Rate.

Responses to our consultation

3.16 SSEPD stated that indexation of the cost of capital to the Risk-Free Rate added unnecessary complexity and volatility to the price control. They noted that the indexation methodology should use inflation outturn not forward estimates of inflation to adjust the real Risk-Free Rate. They did not believe that the relationship between the Risk-Free Rate and the Equity Risk Premium was exactly 1 to 1 and therefore, in their view, this methodology should be reviewed over RIIO-2 and at most considered for RIIO-3 as further evidence arises.

Reason for our decision

3.17 Indexing the Risk-Free Rate reduces the risk of a material miscalculation of the cost of equity during the price control arising from forecast errors on the Risk-Free Rate, and so protects both consumers and investors. Given that the ED companies serve primarily the same consumers as GD&T and the pool of investors is essentially similar, we have decided that the ED sector does not necessitate a different approach.

Total Market Return (TMR)

Consultation Position

3.18 At the December 2019 Framework Decision we said that we would apply the GD&T methodology for determining the cost of capital.[27] In the SSMC we sought views on the application of the methodology used in the GD&T Draft Determinations and this would include the setting of a value for TMR.

[27] RIIO-ED2 Framework Decision, January 2020, page 45

Responses to our consultation

3.19 ENWL and SSEPD referred us to Oxera's submission to the CMA in the PR19 re-determinations. Oxera make 5 criticisms of the approach used for GD&T2 Final Determinations:[28]

a) the restatement of the historical TMR based on an experimental index for historical CPI, which results in a lower estimated TMR
b) the increase of the weighting on the geometric average historical return, therefore moving away from the (in its view, correct) Cooper estimator
c) the move to use the spot yields on government bonds (as opposed to historical practice of aiming up)
d) the use of a higher debt beta (0.125 in the GD&T Draft Determinations, 0.075 in the Final Determinations)
e) reducing the allowed return below the estimate of the cost of equity.

The last two points are addressed below in the sections on debt beta and on Step 3.

3.20 Citizens Advice raised two objections to our estimates for TMR. The first is that Ofgem should consider the broader portfolio of investable assets. They cite Professor Thomas Piketty's widely published work that the overall historical return on capital is 3.0 to 4.0 per cent real[29] and suggest that Ofgem should therefore consider 4.0 per cent as a value for TMR.

3.21 Citizens Advice's second objection was that UK returns historically had shown wide variation over the historic data. They derived at least four sub periods with returns ranging from 4.5 per cent since the Global Financial Crisis, to 10.3 per cent in the period 1945 to 1990. They argue that Ofgem should place greater weight on forecasts of future returns by market participants. In reviewing Ofgem's forecasts, they noted the fall in those forecasts, and critique Ofgem's conversion of arithmetic to geometric returns.[30]

3.22 In conclusion, Citizens Advice suggested that forward return estimates were of the order of 4.8 per cent (CPIH real), well below Ofgem's assumption of 6.5 per cent.

[28] The cost of equity for RIIO-2 Q3 2020 update. Prepared for Energy Networks Association. 4 September 2020. https://www.northerngasnetworks.co.uk/wp-content/uploads/2020/09/CoE-Oxera.pdf Section 3.2.2
[29] Piketty, Thomas. Capital in the Twenty-First Century. Harvard University Press. 2013.
[30] Citizens Advice submission, October 2020, page 31

Reasons for our decision

3.23 Total Market Return is a parameter which is common across all calculations using the CAPM and does not vary by the sector classification of a company under consideration. Therefore, the methodology and value used in GD&T is applicable for ED2.

3.24 Oxera's critiques were considered and addressed in detail in GD&T Draft and Final Determinations.[31] In summary, our views are:

- on TMR, it is not inappropriate to deflate returns by a historical CPI index. Cross-checking with US Dollar returns achieved by investors also supports our approach[32]
- the appropriate methodology for calculating long run returns to investors is the geometric return which we have adjusted appropriately to reflect higher arithmetic average returns[33]
- by indexing the cost of equity to the Risk-Free Rate, we avoid the need to "aim up" on this parameter in the CAPM. Equity investors are compensated for future rises in interest rates by the indexation mechanism.

3.25 Citizens Advice's suggested that expectations of returns are lower than either Ofgem has historically used or the CMA has considered in recent appeals such as PR19 or NATS.[34] We agree with Citizens Advice that we should consider other ex-ante estimates of returns as well as historic returns. We observe the wide variation in returns for sub periods of the UK's historic record which can be used to justify both high and low values.

3.26 In line with the CMA's Provisional Findings in the PR19 re-determinations, we have noted the greater degree of subjectivity in forward-looking estimates of market returns such as Dividend Growth Models, which are reliant on their inputs.[35] Step 2 of our methodology is designed to help ensure that we do not neglect important non-CAPM evidence as to investors' expectations of future returns, that is revealed by the different cross-checks that we conduct.

[31] RIIO-2 Final Determinations - Finance Annex, December 2020, page 144, Appendix Report 2
[32] RIIO-2 Final Determinations - Finance Annex, December 2020, page 47, para 3.90-3.91
[33] RIIO-2 Final Determinations - Finance Annex, December 2020, page, 46, para 3.88
[34] CMA NATS Provisional Findings, page 173
[35] CMA Ofwat PR19 Provisional Findings, page 556, para 9.208

Debt beta

Consultation position

3.27 We made no explicit reference to debt beta in the SSMC. However, the CAPM methodology that we use in Step 1 requires a value for debt beta.

Responses

3.28 ENWL, SSPED and UKPN referred us to a report by Oxera referenced above in paragraph 3.19, which criticised the approach we had taken in setting debt beta for GD&T.[36]

3.29 The RIIO-2 Challenge Group, Citizens Advice and Centrica all supported using the methodology as outlined in the GD&T Draft Determinations, for ED2. This would include setting a non-zero value for debt beta.

Reasons for our decision

3.30 Debt beta is a parameter used in all CAPM calculations to de-gear observed equity betas of listed UK network utility companies. We then take this unlevered asset beta and re-gear it to determine the notional equity beta of the notional company.

3.31 The unlevered asset betas derived can be applied to the calculation of asset beta for a notional company in any of the sub sectors (gas or electricity, transmission or distribution).

3.32 Given the available listed UK network utilities (3 water companies and 2 energy companies), we have no information on how debt betas might differ between different types of regulated energy network companies. We have no evidence to suggest that the debt beta of the ED companies would be different from that of water and other energy network utility companies. Therefore, we consider that the same debt beta as derived for GD&T can also be applied to the notional ED company.

[36] Oxera."_The cost of equity for RIIO-2 Q3 2020 update". Prepared for Energy Networks Association, 4 September 2020. https://www.northerngasnetworks.co.uk/wp-content/uploads/2020/09/CoE-Oxera.pdf Section 3.2.2

3.33 In the Draft Determinations for GD&T, we proposed to set a value for debt beta of 0.125, which we considered was reasonable in light of the evidence we had and the work undertaken by CEPA on debt beta, which was published by the UKRN.[37]

3.34 For the GD&T Final Determinations, we considered the evidence provided by stakeholders and also in the CMA's PR19 Provisional Findings, and decided to set a debt beta of 0.075, lower than our Draft Determinations value of 0.125. There is a lack of a single agreed methodology for determining debt beta so we believed taking the mid-point of the range of realistic values was justified.

3.35 A debt beta equal to 0.0 implies no systematic equity risk for corporate debt, i.e. that the risk of corporate bonds is completely uncorrelated with equity risk. This appears to us to be an unrealistic assumption.[38]

3.36 The objections raised by Oxera are those raised in their earlier report on debt beta.[39] We addressed this report in our GD&T Final Determinations.[40] We believe that our objections there apply also to the calibration of the debt beta parameter in ED2 as we have no evidence that the debt beta for the ED companies would be significantly different than that of the GD or T companies.

3.37 We will calibrate debt beta at the Draft Determinations stage.

Equity beta

Consultation position

3.38 In the SSMC, we sought views on how we could estimate systematic risk for ED2. We also sought views on any evidence to support making a distinction between ED and the other RIIO sectors, GD&T, which is discussed in the section below.

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[37] CEPA. "Considerations for UK Regulators setting the value of debt beta". 2 December 2019. https://www.ukrn.org.uk/publications/considerations-for-uk-regulators-setting-the-value-of-debt-beta/

[38] Indepen. https://www.ukrn.org.uk/wp-content/uploads/2019/01/final_beta_project_riio_2_report_december_17_2018_0.pdf#page=165 Appendix E p 4. Also see Merton, R. (1974), 'On the Pricing of Corporate Debt: The Risk Structure of Interest Rates', The Journal of Finance, Vol. 29, No. 2, pp. 449-470

[39] Oxera. "Estimating Debt Beta for Regulated Entities". 8th June 2020. https://www.northerngasnetworks.co.uk/wp-content/uploads/2020/09/Oxera-2020-%E2%80%98Estimating-debt-beta-for-regulated-utilities%E2%80%99-4-June..pdf

[40] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021, Consultancy Report number 5. page 149

Responses to our consultation

3.39 SSPED, SPEN and UKPN all argued that Ofgem had placed an inappropriately high weighting on the water sector stocks (SVT, UU and PNN) in estimating a beta range and midpoint for GD&T. They cited Oxera's research, which argued that CEPA's choice of a European comparator set for beta inappropriately included some very illiquid stocks. Oxera's estimated range for asset beta, for the Energy Networks Association (ENA), was 0.38 to 0.41 (with debt beta equal to 0.05).[41]

3.40 In their consultation response, Citizens Advice criticised Ofgem's use of a range of equity beta of 0.34 to 0.39 (with a debt beta of 0.0125) in GD&T Draft Determinations and argued that the equity beta should be at most 0.3, giving rise to a notional equity beta of 0.55.

Reason for our decision

3.41 Our evidence base for determining the beta of the ED companies is, at the present time, the same one as that for GD&T. There are five relevant listed UK network companies. Of these two water companies are substantially pure play regulated UK network companies: Severn Trent and United Utilities. Of the two energy companies (SSE & National Grid), SSE has a large percentage of its assets in unregulated generation and renewables assets. National Grid is a pure play energy network company but with about half of its regulated assets in the US. Accordingly, our estimates of the beta for ED2 are made by starting with our estimates for the beta of the GD&T sectors. We then asked for evidence as to whether the ED2 companies had different systematic risks than the GD&T companies.

3.42 In the GD&T Final Determinations, we increased our unlevered beta to 0.311 from a midpoint of 0.3025 at Draft Determinations. Given our lower debt beta, this resulted in a midpoint for the asset beta of 0.349 versus 0.365 at Draft Determinations. However, the midpoint notional equity beta for Final Determinations was 0.759 versus 0.725 at Draft Determinations. This resulted in an increase in the cost of equity in our Final Determinations.

3.43 The increase in our estimate of asset beta was made as a result of our decision to place greater weight on the National Grid (NG) beta alongside those of the three

[41] Oxera."_The cost of equity for RIIO-2 Q3 2020 update". Prepared for Energy Networks Association, 4 September 2020. https://www.northerngasnetworks.co.uk/wp-content/uploads/2020/09/CoE-Oxera.pdf

water companies. As NG is not a "pure play" UK-regulated energy network, we exercised our regulatory judgement on how to employ its beta in our decision on the systematic risk of UK energy network companies.

3.44 In GD&T Draft Determinations, we had asked questions regarding the relative risk between the water and electricity sectors as well as within the energy subsectors. We found, broadly, that network companies in both the GD and T subsectors argued that they had higher risk than the other subsectors.

3.45 In GD&T Final Determinations, we noted that Oxera had, in its October 2020 report for the French Energy Regulator (CRE), suggested an asset beta of 0.32 to 0.38 for the electricity transmission network, RTE, after considering NG. Our final point estimate of 0.349 (with debt beta of 0.075) is within the range of values Oxera implied (0.32 to 0.41).[42]

3.46 Table 10 of GD&T2 Final Determinations shows our OLS estimates of unlevered betas for the different UK network companies.[43] 0.311 is above the simple average beta for the 4 best proxies (NG, PNN, SVT and UU) of 0.299.

3.47 We do not agree with Citizens Advice's estimate of a much lower beta. As they point out, it is true that reports from Stephen Wright and Donald Robertson, and subsequent reports from Donald Robertson suggested that lower values for beta are plausible. However, there is a wide range of possible values and OLS estimates have tended to give higher estimates than GARCH. We have retained our focus on OLS methods but have been informed in our judgement by the other approaches.

Evidence regarding the relative risk of the ED sector vs GD&T sectors

Consultation position

3.48 In the SSMC, we sought views on any evidence to support a difference between ED and the other RIIO sectors, GD&T.

[42] RIIO-2 Final Determinations - Finance Annex, December 2020, page 41, para 3.68
[43] RIIO-2 Final Determinations - Finance Annex, December 2020, Table 10, page 42

Responses

3.49 ENWL, Northern Powergrid (NPg) and UKPN argued that the ED sector has higher risk than the GD or T sectors. All three companies cited risks specific to the ED sector and the implementation of net zero.

3.50 NPg argued that Ofgem should consider the specific (non-systematic or diversifiable) risks faced by the ED sector. They noted the risks for customers of underinvestment if investors are not commensurately compensated for bearing political and regulatory risks.

3.51 UKPN noted several factors which, in their view, increase the risk of the ED sector. They cited the impact of the creation of the Distribution System Operator (DSO) role for DNOs and they noted the higher asset beta determined for the ESO in its price control (0.45 at Draft Determinations vs 0.365 for ET & GT). The also noted the higher risks associated with the increased investment which will required by the ED companies to achieve net zero. They also believed that the shape of the overall incentive package in RIIO-2 compared to RIIO-1 increased risks for the ED companies.

3.52 SPEN, by contrast, argued that an energy sector relative risk analysis cannot be conducted until after the SSMD, when a more quantitative relative risk framework and analysis would be possible. In their view, before then only qualitative judgements are possible.

3.53 The RIIO-ED2 Challenge Group took the opposing view and suggested that, if anything, the sectoral risks are lower for ED companies than for GD or T. They noted that the anticipatory framework for ED2, where Ofgem provides headroom for load-related investments, should reduce risk. ED2 capital investment projects will generally be of lower size than transmission projects. The introduction of competition for larger, riskier projects means that in some cases the DNO may not be responsible for their delivery. Finally, they suggested that the risks associated with investment to split off the DSO function (e.g. in IT) could be mitigated via an uncertainty mechanism.

3.54 Citizens Advice said that they had identified no strong reason why ED would have a significantly different risk level to the GD&T sectors. Centrica said that they were unaware of robust evidence for differences in systematic risk between sectors.

Reasons for our decision

3.55 We have considered arguments in favour of ET having higher systematic risk (due to large project size) and also of GD being higher risk (due to stranded asset risk associated with the decarbonisation of heating).[44] However, we have not identified any argument, from the submissions by the ED companies or by any other party, which presented conclusive evidence that any energy subsector is higher or lower risk than another.

3.56 At this stage in the ED2 price control, we do not see strong evidence to suggest that the ED sector faces higher systematic risk than GD or T or in favour of a higher beta for ED. We note that each sector has made arguments as to why it should be viewed as higher risk than the others. We agree with SPEN that when the network companies submit their business plans, new evidence may emerge to substantiate the claims by the ED network companies that they are higher risk. Increased investment under net zero may be captured within the uncertainty mechanisms in the price control. We do not as yet have evidence as to the scope of DSO activities within the DNOs, to make a judgement whether that would influence their overall risk.

Step 2 - Cross-checking the CAPM-implied cost of equity

Consultation Position

3.57 In the SSMC we asked for opinions on the implementation of the three-step methodology used in GD&T Draft Determinations and this included the cross-checking of the CAPM results against market measures of returns expected by investors.[45]

Responses to our Consultation

3.58 ENWL, SSEPD, SPEN and UKPN argued that Ofgem should not use Market-to-Asset Ratios (MARs) for water sector companies to make inferences about the cost of

[44] RIIO-2 Final Determinations - Finance Annex, December 2020, page 39, para 3.61-3.62 and page 43, para 3.75-3.76
[45] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance, July 2020, page 10 para 3.3-3.6

equity and market expectations of outperformance for energy network companies. Oxera also presented arguments on this subject.[46]

3.59 Citizens Advice suggested that the true cost of equity, as revealed by the MAR analysis, could be as low as 1.7%.

Reasons for our Decision

3.60 We believe we have adequately addressed the issues raised in the Oxera report in the GD&T Final Determinations.[47] The same data for regulated UK network companies can be applied to ED as well as GD&T because there is no reason to think that water company MAR data is any more or less applicable to ED than to GD or T. We believe the MAR data both from public listed companies and private transactions is strong evidence that we have not derived a range for the cost of equity that is too low. Either UK regulators have set the cost of equity too high relative to the true cost of equity, and/ or investors expect a degree of outperformance above the regulatory settlements. Our review of broker research over time shows that outperformance is embedded in their forecasts for the companies.

3.61 In our Final Determinations for GD&T, we continued to place weight on data from the OFTO bids and the infrastructure fund premia as indicative of the returns that the market is expected from investments in utility assets. We continue to believe that these can provide useful evidence of market expectations of future returns.

Step 3 - Expected versus allowed returns

Consultation position

3.62 In the SSMC, we said that we considered the three step methodology used in GD&T to be flexible and that it could be tailored to ED sector circumstances as necessary.[48] We asked a general question about the application of this methodology to ED2.

[46] The cost of equity for RIIO-2 Q3 2020 update. Prepared for Energy Networks Association. Oxera, 4 September 2020. https://www.northerngasnetworks.co.uk/wp-content/uploads/2020/09/CoE-Oxera.pdf Section
[47] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021, page 148
[48] Ibid. para 3.6

Responses to Our Consultation

3.63 A number of companies raised fundamental objections to the distinction between expected returns and allowed returns (or "wedge") and its proposed implementation in GD&T at the level of 25bps (at 60% gearing) but with an ex post adjustment at the end of the price control.

3.64 ENWL stated that Step 3 should never be necessary in a well-calibrated incentive-based regulatory regime, particularly one that was also likely to include RAMs. They argued that Ofgem's introduction of an ex post adjustment adds to uncertainty for investors.

3.65 SPEN stated that there was no evidence that investors expect that companies can systematically outperform cost and output targets set in price controls. They argued that the implication of the wedge is that Ofgem believes that regulators are not capable of setting "a fair bet". Ofgem should instead use incentive and cost target mechanisms to correctly calibrate the price control.

3.66 WPD drew attention to a First Economics paper by Earwacker and Fincham – a survey of former regulators, which argued that:

> "..it is also inappropriate for regulators to decide before a price review even begins that they will inevitably fail to set expenditure allowances and output targets in such a way as to set up a 'fair bet' (or equivalent)." [49]

3.67 UKPN noted a paper prepared by Frontier Economics for the ENA, which quantified the impact of the outperformance wedge. UKPN argues that the mechanism erodes investor confidence and increases investment risk and thus ultimately increases the cost of capital.[50]

3.68 The RIIO-2 Challenge Group and Citizens Advice both supported the framework used in GD&T, which includes the wedge. Citizens Advice stated that a reasonable expectation of outperformance could be 1.9%. Taking into account sharing factors, they suggested a reasonable allowance for outperformance would be

[49] "Information Asymmetry and the Calibration of Price Controls" August 2020. http://www.first-economics.com/earwakerfincham.pdf
[50] "Further Analysis of Ofgem's Proposal to Adjust Baseline Allowed Returns", September 2020. https://www.northerngasnetworks.co.uk/wp-content/uploads/2020/09/ER-vs-AR-Frontier-Economics.pdf

0.95%. Centrica also said we should use the same framework as was used in the GD&T2.

Reasons for our Decision

3.69 We will not be able to comment on Citizen's Advice's estimates of possible outperformance until we have considered the DNOs' business plans.

3.70 We addressed the points raised in the First Economics[51] and the Frontier Economics paper in the GD&T Final Determinations.[52] As Step 3 is common to the ED2 price control, we consider that our arguments made there are also applicable to ED2.

3.71 The GD&T Sector Specific Methodology Decisions and Draft Determinations set out our evidence in support of an information asymmetry between a regulator and regulated companies.[53] The ED companies generally disagreed with our approach to addressing that asymmetry or even the need to address it.

3.72 We do not agree with the companies, and in particular with ENWL and SPEN, that the outperformance wedge is an inappropriate way to address a fundamental asymmetry in information between a regulator and regulated companies. We took the decision at the Framework Decision stage to implement the three-step methodology which includes the outperformance wedge and we set out in that decision the reasons why we think it is appropriate.[54]

3.73 Our proposal for the ex post adjustment mechanism in GD&T Draft Determinations was for a sector average mechanism. After consideration of consultation responses, we decided in GD&T Final Determinations that a licensee-specific mechanism was more appropriate. As a working assumption, we have decided that this same mechanism be implemented in ED2 although, we will consider this matter further once we are in receipt of the business plans. None of the responses raised specific issues as to why this approach would not be suitable for ED2 specifically.

[51] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 163 Report 14
[52] Ibid. Appendix 2, page 153, Report 9
[53] RIIO-2 Draft Determinations – Finance Annex, July 2020, page 70, para 3.120-3.132. RIIO-2 Sector Specific Methodology Decision: Finance, May 2019, page 71, para 3.270-3.299
[54] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance, July 2020, page 10, para 3.6

Working Assumptions for Business Plans

3.74 We set out below the working assumptions licensees should use for allowed returns on equity in preparation of business plans in ED2. With the exception of movements in the Risk-Free Rate, we have not changed these assumptions from the values set in GD&T Final Determinations.

3.75 We do not have evidence at this stage to support a different relative risk assessment for ED compared to GD&T. Therefore, as a working assumption, we have chosen the beta range and value in line with that of GD&T2.

3.76 In line with GD&T Final Determinations, we use a working assumption for allowed return on equity of 25bps (0.25%) below our cost of equity determined at the end of Step 2 (with a working assumption of 60% gearing).

Table 1 - Summary of Cost of Equity Working Assumptions (60% notional gearing, CPIH-real)

Equity steps and parameters		ED2 Working Assumption	GD&T Final Determinations
Step 1 – The Capital Asset Pricing Model evidence	Risk-free rate forecast	-1.16%	-1.58%
	Total Market Returns	6.5%	6.5%
	Debt beta	0.075	0.075
	Asset beta	0.349	0.349
	Unlevered beta	0.311	0.311
	Notional equity beta	0.7586	0.7586
	CAPM implied cost of equity	4.65%	4.55%
Step 2 – cross-checks and assessed cost of equity		No adjustment to CAPM midpoint for cross checks for working assumption purposes	Suggests a mid-point of 4.4%. However, we have assessed the cost of equity at 4.55%.[55]
Step 3 – baseline allowed return on equity		4.4%, reflecting 0.25% expected outperformance	Baseline allowed return of 4.30%, reflecting 0.25% expected outperformance.

[55] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 49, para 3.99

4. Financeability

Financeability relates to licence holders' ability to finance the activities which are the subject of obligations imposed by or under the relevant licence or legislation.

In this section, we summarise the July 2020 proposals, the consultation responses, and our thoughts, if any, on these.

Introduction

4.1 Ofgem has a duty to have regard to the need to secure that network companies are able to finance the activities which are the subject of obligations imposed by or under the relevant legislation.

4.2 We use a financeability assessment as a last check that, when all the individual components of our Determinations are taken together (including totex, allowed return, notional gearing, depreciation and capitalisation), a notional efficient operator can generate cash flows sufficient to meet its financing needs.

4.3 The ED2 Framework Decision made reference to the following design principles (among others), which are particularly relevant to financeability:

- the cost of capital allowance should be set to enable a notional efficient operator to maintain an investment grade credit rating, and generate an expected return to equity that fairly reflects the risk facing investors in the price control settlement[56]
- notional gearing should be determined as a reference point for the notional company for the purposes of calculating the weighted average cost of capital (WACC) with consideration of the risks network companies face, rating agency views on gearing levels for investment grade regulated networks, balancing an appropriate cost of capital and the impact medium term market conditions have on debt servicing[57]
- the depreciation allowance (the rate at which the regulated asset value (RAV) is 'repaid' to investors) should be set, so that different generations of consumers pay for network services broadly in proportion to the value of the

[56] RIIO-ED2 Framework Decision, January 2020, page 66, Design principle 15
[57] Ibid, Design principle 16

services they receive, whilst having regard to balancing affordability, financeability and the interaction between depreciation and capitalisation[58]

- the capitalisation rate (the proportion of totex that is added to the RAV each year) should reflect the broad balance between capital and non-capital expenditure (as forecast at the start of the control period), whilst having regard to balancing affordability, financeability and the interaction between depreciation and capitalisation.[59]

Our Decision

Purpose	To check that all components of our Final Determinations, when taken together, allow a notional efficient operator to generate cash flows sufficient to meet its financing needs.
Decision	To focus on the notional company, with a detailed review following receipt of business plans having regard to information in business plans and market data at that time.

Our Consultation Position

4.4 For RIIO-ED2, we proposed to align our approach to financeability with the approach set out in our GD&T SSMD[60]. This involves a focus on the notional company, with a detailed review following receipt of business plans. We said that we do not consider there to be any sector-specific reasons to take a different approach to assessing financeability for RIIO-ED2.

4.5 As for GD&T, we proposed that DNOs assess financeability, including running a common set of stress test scenarios in their business plans, and provide assurance in final business plans on their notional and actual company financeability. We proposed that the Ofgem-suggested stress tests scenarios used for GD&T could also be applied to RIIO-ED2 business plans as we did not consider there to be any sector-specific reasons to run different stress test scenarios.

4.6 We also said that the actions that network companies could take to address any financeability concerns as set out in the GD&T SSMD Finance Annex[61] could also

[58] RIIO-ED2 Framework Decision, January 2020, page 67, Design principle 20
[59] RIIO-ED2 Framework Decision, January 2020, page 67, Design principle 21
[60] RIIO-2 Sector Specific Methodology Decision - Finance, May 2019, page 71, para 4.99
[61] RIIO-2 Sector Specific Methodology Decision - Finance, May 2019, page 79, para 4.5

be taken by DNOs to address financeability concerns, as we do not consider any of them to be sector specific. These are:

- dividend policies can be adjusted to retain cash within the ring-fence during the RIIO-1 or RIIO-2 period
- equity injections can be used to reduce gearing
- expensive debt or other financial commitments could be re-financed
- network companies can propose alternative capitalisation rates and/or depreciation rates, if appropriate
- notional gearing can be adjusted.

4.7 We noted that our financeability assessments for GD&T had led to some proposed (and now decided) reductions in notional gearing, compared to RIIO-1. We invited stakeholders' views as to whether this may be appropriate for the ED sector.

4.8 In relation to financeability, we asked the following four questions:

- FQ8. Do you agree with our proposal to align the RIIO-ED2 financeability approach with the approach we have taken for GD&T?
- FQ9. Are there any reasons why this approach should differ for RIIO-ED2?
- FQ10. Do you have a view, supported by evidence, regarding the appropriateness of different measures to address any financeability constraints?
- FQ11. Do you have any views on the proposed scenarios to be run for stress testing?

Approach to Financeability

Responses to our Consultation

4.9 Citizens Advice and the RIIO-2 Challenge Group agreed with our proposal to align the approach to financeability with that used for the GD&T sectors. However, the RIIO-2 Challenge Group suggested that business plan guidance should require more discussion from networks on the trade-offs involved in selecting a target rating or gearing level and they also recommend networks complete more stakeholder engagement on financeability.

4.10 Two ED networks agreed at a high level with the proposed approach involving a focus on the notional company and the principles set out in the ED Framework

Decision and SSMC. However, one noted that the CMA's Provisional Findings for PR19[62] should be considered as to whether this should lead to any changes in methodology.

4.11 One ED network considered Ofgem's legislative duty is to ensure the financeability of individual networks and not the notional company or the sector average.

4.12 Other ED networks did not agree with the proposed approach because they considered that the assumptions made for the GD&T notional company needed to be better justified and/or may need to be different for ED networks.

4.13 One ED network suggested that Ofgem should also include a step in its process which tests if the "notional company" is a realistic comparator and should explain fully the basis on which it reaches its conclusion. That network also suggested that a comparison of the notional company's financial ratios to those of actual companies should be given significant weight in assessing the achievement of quantitative measures of investment grade.

4.14 Some ED networks suggested that financeability risks are masked by the decision to move from RPI to CPIH indexation, since this increases current revenues and reduces future revenues (compared to RPI indexation).

4.15 Some ED networks mentioned that given the scale of expected investment that may be required to be funded via reopeners in the ED sector, the RIIO-2 process needs to include these forecasts in the annual live forecasting proposals to reduce the burden on companies as true-ups will be actioned faster. In addition, some networks recommended that the longer tariff setting process in ED relative to other sectors should be factored into financeability assessments.

4.16 Some ED networks mentioned the importance of stress testing and, in particular, inflation stress testing.

Reasons for our Decision

4.17 Section 3A of the Electricity Act 1989 and section 4AA of the Gas Act 1986 set out Ofgem's principal objective and general duties. The relevant wording in relation to Ofgem's financeability duty in both Acts provides that "the Authority shall have

[62] Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations, Provisional findings, CMA, 29 Sept 2020

regard to……(b) the need to secure that licence holders are able to finance the activities which are the subject of obligations imposed……".

4.18 The financeability duty requires us to "have regard to" the need to ensure that licensees are able to finance their activities, rather than a duty to ensure or secure the financeability of licensees. While financeability is an important consideration, and one that we take very seriously, it is not the only consideration to which Ofgem's attention is directed by statute. The relevant sections of the Electricity Act and Gas Act, and relevant CMA authorities, require Ofgem to weigh these considerations in the round.

4.19 We therefore believe that a continued focus on the notional company for setting price control parameters is appropriate in light of our financeability duty and our other duties. We will consider actual company debt positions and structures to inform the notional structure and to inform our views on potential increased monitoring of actual companies with a less comfortable credit profile. However, we do not believe that Ofgem is required to "ensure" or "secure" that all licensees are actually financeable in any and all circumstances (whatever risks they have taken or however inefficient they may be).

4.20 An obligation to "ensure" or to "secure" actual company financeability would have the effect of the consumer underwriting all financing decisions of networks despite companies, their boards and management being better placed to manage risks associated with these decisions and benefitting from additional returns if those decisions lead to outperformance.

4.21 We believe the move away from RPI is in both consumers' and network companies' interests as the RPI measure of inflation is no longer considered an accurate measure of inflation. We note the most recent HM Treasury (HMT) and the UK Statistics Authority (UKSA) recent response to their consultation on RPI reform, which stated that the UKSA intends to reform RPI so that from February 2030 RPI will equal CPIH[63]. This means that our switch to CPIH is entirely aligned with the approach of HMT and UKSA and that it only really represents a 'switch' for a maximum of 7 years for the ED sector, after which point RPI is expected to convert to equal CPIH in any case.

[63] https://consultations.ons.gov.uk/rpi/2020/user_uploads/rpi-consultation-response.pdf

4.22 We therefore believe that in moving to a more credible measure of inflation than RPI, we are basing our regulatory settlement on robust principles for the long term (continuing with a discredited measure of inflation that arguably under-compensates networks in real allowances cash flow and over-compensates in RAV inflation would not be a robust principle for the long term).

4.23 In response to the suggestion that the switch to CPIH 'distorts' metrics, our view is that using RPI, which is now a widely discredited measure of inflation, would distort metrics by under-compensating network companies in real cash flow allowances and over-compensating network companies on RAV inflation because RPI is an artificially high (and volatile) measure of inflation. Using an artificially high measure of inflation would exacerbate the challenge faced by all regulated networks that have part of their returns in the form of RAV inflation because it increases the 'inflation gap' in key credit metrics between real cash allowances and largely nominal debt costs. Using an appropriate measure of inflation leads to an appropriate balance between real cash flow allowances and RAV inflation.

4.24 In response to the suggestion that a step be added to assess whether the notional company is a realistic comparator, we consider that this has been implicitly included in our GD&T Final Determinations by considering how the notional company assumptions have been informed by market data. However, we consider it reasonable that we re-assess those notional company assumptions in the context of ED in order to check the appropriateness or otherwise of these assumptions for the ED notional company when compared to the GD&T notional companies.

4.25 In relation to forecasting of reopeners, we note that our Final Determinations for GD&T does allow forecasting of reopeners[64] but that this is an implementation point that will be addressed at the ED determination stage rather than in this methodology decision.

4.26 Stress testing is discussed in the section below.

[64] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 131 para 11.67-11.71

Next Steps

4.27 Given Ofgem's decision to focus on the notional company for assessing price control parameters, we will review notional company financeability analysis for individual notional licensees following business plan submission.

Measures to Address Financeability

Responses to our Consultation

4.28 Citizens Advice and the RIIO-2 Challenge Group consider that the measures set out in paragraph 4.8 of the SSMC Finance Annex are adequate and provide networks with flexibility to address financeability constraints.

4.29 Some ED networks suggested that the primary means to achieve financeability is to set appropriate cost of capital allowances and that if these are high enough then there may be less need to consider other financeability options.

4.30 ED networks had differing views on whether depreciation and capitalisation rates could be used to improve financeability, with some suggesting that these measures could be used and others suggesting that they should not be used for this purpose. One network suggested that there are multiple reasons for why depreciation periods should be reduced for some investment, financeability being one of them. Those that suggested these measures should not be used mentioned potential exclusion from certain rating agency credit metrics as the reason and others suggested that the integrity of the price control and confidence of investors could be undermined by what they consider to be short-term measures to address financeability constraints.

4.31 Some ED networks suggested that notional gearing should be aligned with the sector actual gearing and that notional gearing should not be adjusted to reduce notional company financeability pressure unless the actual gearing of networks is below previous notional gearing assumptions.

4.32 One ED network suggested that if notional gearing levels are reduced then Ofgem should allow for the costs of notional equity issuance and the cost of buying back embedded debt.

Reasons for our Decision

4.33 We believe it is appropriate to leave open the option of adjusting capitalisation or depreciation rates to address financeability constraints because these measures can increase revenue in the short-to-medium term in return for lower RAV growth and are, therefore, NPV-neutral levers. We believe these measures can be used to improve cashflow and some metrics, but we recognise that it may not impact Moody's AICR (or Fitch's PMICR) if viewed as 'excess fast money'.

4.34 We recognise there are certain limitations to adjustments to capitalisation rates and will assess any proposed adjustments in light of the evidence and justification provided through business plans. Similarly, we will look at any proposed adjustments to depreciation rates in company business plans, primarily in light of evidence provided by the network companies. However, network companies should also assess the financeability impact of any such changes to depreciation and/or capitalisation rates, if the company considers such changes are appropriate and justified.

4.35 We consider it wholly appropriate if there are constraints on certain credit metrics for the notional company that we consider appropriate action(s) in response. As set out in the GD&T Draft Determinations Finance Annex[65], we consider a reduction in notional gearing, if required, particularly when accompanied by equity issuance allowances, is proportionate and appropriate.

4.36 We are currently of the view that, if cost of capital allowances are set with reference to market evidence but there are constraints on notional company credit metrics, then this would likely have resulted from the combination of a) expected investor returns (for both equity and debt) being at close to historically low levels, and b) Ofgem allowing remuneration for average embedded debt costs that have been contracted at higher than current rates because rates have been falling over a long period of time.

4.37 As set out in the GD&T Final Determinations Finance Annex,[66] we do not believe that offering networks the protection of remunerating average efficient embedded debt costs should lead to a requirement to over-compensate equity or 'aim up' for apparent financeability reasons if constraints in certain metrics are identified. For this reason, we continue to consider the measures identified in the SSMC (and

[65] RIIO-2 Draft Determinations – Finance Annex, July 2020, page 105, para 5.37-5.57
[66] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 76, para 5.15-5.20

repeated in paragraph 4.5 above) as valid for addressing financeability constraints if any are identified.

4.38 Without prejudice to the proposals and decisions to be made at the Draft and Final Determinations stages respectively, we suggest ED networks use a working assumption of 60% notional gearing in their business plans. Although this represents a 5% reduction from RIIO-ED1 levels, this would be consistent with GD and GT Final Determinations notional gearing levels and is more likely to provide a meaningful starting point for ED financeability assessment. However, in line with suggestions from the RIIO-2 Challenge Group, we encourage ED networks to undertake analysis and stakeholder engagement on the trade-offs involved in different notional gearing and rating assumptions/targets and the relative costs and benefits to consumers of the different options available.

Scenario analysis

Responses to our Consultation

4.39 Citizens Advice and the RIIO-2 Challenge Group suggested that Ofgem should maintain the same stress testing as was used for the GD&T sectors and that there is no requirement for sector-specific stress testing.

4.40 Some ED networks suggested that Ofgem should apply a broader range of stress tests than was used for GD&T in order to capture sufficient downside scenarios. In particular, some ED networks mentioned the uncertainty of the Covid-19 recovery as a reason for why a broader range of macroeconomic scenarios should be tested. One network pointed to individual years of RIIO-1 where inflation had diverged by approximately 2% from the forecast as a reason why a ±2% CPIH inflation scenario should be run. In addition, the examples related to RPI inflation, which is a more volatile measure of inflation than CPIH.

4.41 Some ED networks also suggested that in GD&T, Ofgem failed to recognise the efficiency challenge in assessing the probability of overspend.

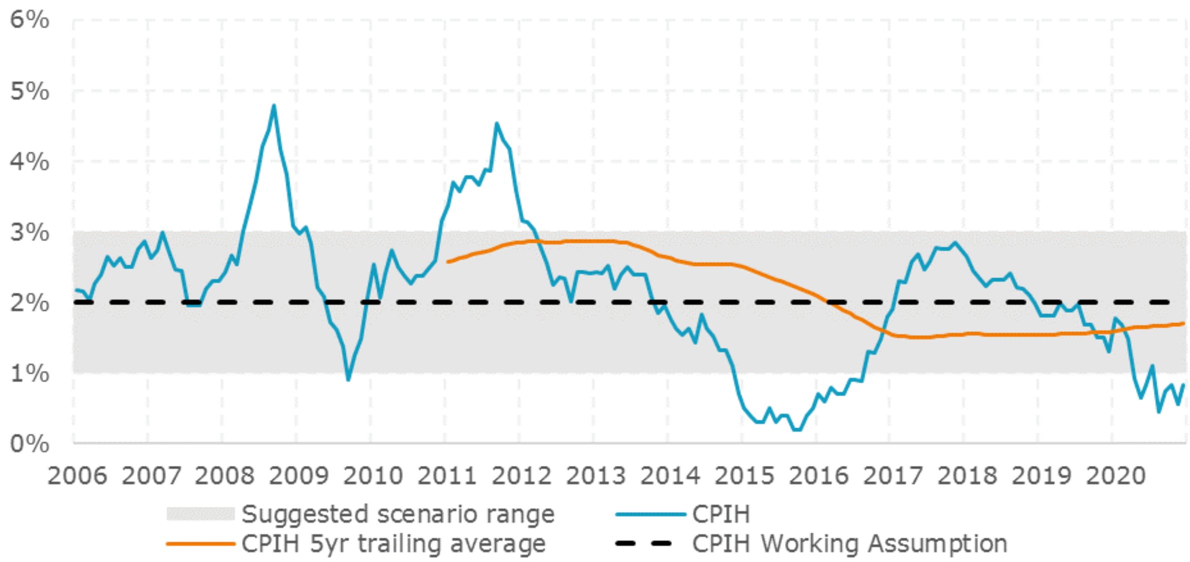
4.42 Some ED networks suggested that Ofgem should work with the ENA finance working group to develop the common set of stress tests and that these should be in addition to any scenarios that a company considers relevant for its business plan.

Reasons for our Decision

4.43 We encourage network companies to assess appropriate scenario testing as part of their business plan process and set out the scenarios they consider to be appropriate given the assessment of risk. We will discuss scenario testing further through the ENA finance workshops and with network companies throughout this process and may provide updated guidance.

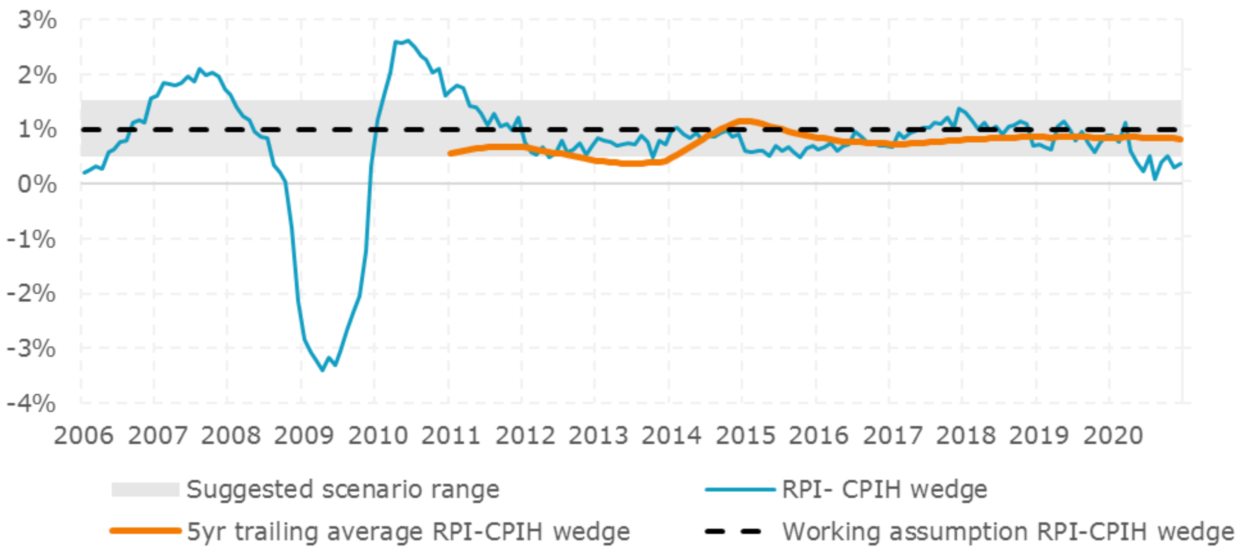
4.44 We do not consider individual year inflation divergence of 2% or more as an indicator that a ±2% inflation scenario should be run for each and every year of the price control. We have updated for recent CPIH data in Figure 2 and consider that although 2020 inflation has fallen outside the suggested core scenario range, the 5yr average is still well inside it. We therefore consider the core scenario run for GD&T networks of ±1% CPIH in each year of RIIO-2 remains relevant for ED networks and should be a core scenario presented. However, we do not discourage ED networks from running additional scenarios where they consider this relevant.

Figure 2: CPIH Historical Data



4.45 Similarly, although Figure 3 shows that the differential between RPI and CPIH has for parts of 2020 been less than 0.5%, the 5yr trailing average has remained within the ±0.5% suggested core scenario band in all but one year. We therefore consider a ±0.5% RPI/CPIH divergence scenario remains appropriate as a core scenario. However, we do not discourage ED networks running additional scenarios in addition to those set out in Table 2.

Figure 3: RPI-CPIH wedge historical data



4.46 As a starting point, the common set of scenarios set out in Table 2, which are consistent with the scenarios that were required of the GD&T networks,[67] must be included in ED companies' first draft business plans (along with any individual company scenarios). We do not currently consider there to be any sector-specific reasons to run different core scenarios to those run by GD&T networks.

Table 2: Ofgem suggested scenarios

Factor	Ofgem Proposed Level (relative to working assumption level)
Macro Scenarios	
Interest rate scenarios	±1% compared to forward implied rates as per the base case in each year (for RFR, Libor/SONIA and iBoxx inputs)
CPIH scenarios	±1% in each year
RPI-CPIH divergence scenarios	±0.5% from assumed RPI/CPIH wedge
Performance Scenarios	
Totex performance	±10%
RoRE	±2% compared to base assumption
Other Scenarios	
Proportion of inflation linked debt	±5%[68]

[67] RIIO-2 Sector Specific Methodology Decision – Finance, May 2019, page 94, para 4.72-4.80
[68] Compared to notional company assumption of 25% for notional company analysis and compared to actual company proportion forecast at end of RIIO-1 for actual company analysis

Next Steps - Company Business Plan Financeability Assessment

4.47 We recognise that the financial parameters are subject to some debate with network companies, however, we consider it important that all network companies submit business plans using consistent assumptions for the key financial parameters in order for them to be meaningful and comparable in terms of an initial financeability assessment. We therefore consider it inappropriate for network companies to use their own assumptions for cost of capital allowances in their business plans.

4.48 We would not consider use of the working assumptions as conferring network companies' agreement with them and we are comfortable with network companies submitting their concerns about the working assumptions. However, business plans must use the working assumptions.

4.49 As discussed above, we focus on the notional company for assessing the financeability of the price control parameters. However, actual company financeability and financial resilience is also important to understand and monitor in the interests of consumers. Therefore, business plans must include both notional and actual company financeability assessments.

4.50 We expect network companies' boards to provide assurance related to notional and actual company financeability. The requirements for this assurance are set out in the business plan guidance.[69]

4.51 We intend to discuss actual company modelling further with ENA members through the finance and modelling working groups, but suggest that the actual company is modelled (for draft and final business plan submissions) by adjusting for:

- actual gearing for each year

[69] RIIO-ED2 Draft Business Plan Guidance, August 2020

- actual cost of debt for each year (which will incorporate actual debt issuance forecast for each year). This should include the impact of derivatives[70]
- actual tax payable for each year
- actual dividend policy/dividend forecast for each year
- actual equity issuance for each year
- any other material divergence from the notional company (for example, in consideration of timing differences or directly remunerated services).

[70] Inclusion of the impact of derivatives for actual financeability does not imply derivatives will be included in the assessment of debt allowances, which are to be based on what would be considered appropriate for the notional company and is to be determined following further analysis post business plan submission

5. Financial Resilience

In this chapter we summarise stakeholder responses to our SSMC position that additional financial resilience measures be added to ED licences to help protect consumers from adverse consequences of financial distress, our views on those responses and our decision.

Introduction

5.1 We have consistently said[71] that networks are able to determine the appropriate actual capital structure for their own circumstances, so it is possible that individual actual network credit quality may be different to our assessment of notional company credit quality.

5.2 In our view, it is companies and their investors rather than consumers that should bear the risk of a company's choice of its actual capital structure to the extent that it departs from the notional capital structure.

Our Decision

Purpose	Financial resilience measures aim to protect consumers from adverse consequences of financial distress.
Decision	To require licensees to provide Ofgem with financial resilience reports if ratings fall to below specified levels and rating reports for negative ratings actions, where possible.

Our Consultation Position

5.3 We said that in our view some changes are required to assist us in monitoring the credit quality of all licensees and to clarify upfront the reporting expectations for networks whose actual issuer credit ratings fall materially below those generally expected for the notional company.

5.4 We proposed adding a licence requirement for licensees to provide to Ofgem a) published rating reports, where possible, and b) a financial resilience report if their issuer credit rating falls to BBB/Baa2 (or equivalent) and is placed on negative

[71] RIIO-ED1: Draft determinations, page 19, para 3.19

watch (or is downgraded directly to a lower rating without first being placed on negative watch).

5.5 We asked the following question in relation to financial resilience:

- FQ12. Do you agree with our proposal to place additional requirements on licensees in RIIO-ED2 to provide Ofgem with a) published ratings reports, and b) a financial resilience report if their issuer credit rating falls below specified levels?

Responses to our Consultation

5.6 The RIIO-2 Challenge Group and Citizens Advice agreed with our proposals, with Citizens Advice noting that while it is a precautionary measure and appropriate, it is not one that they believe reflects increased risk.

5.7 Some ED networks agreed that the additional requirements will assist with monitoring and further protecting GB consumers.

5.8 Some ED networks suggested that further clarification was required regarding the definition of published rating reports and how the requirement would be framed if rating reports relate to group companies rather than individual licensees. In addition, some networks wanted to understand how these requirements interact with existing requirements.

5.9 Some ED networks suggested that the requirement for a financial resilience report should only be triggered if two ratings were at BBB/Baa2 and on negative watch (unless the licensee has only one rating).

5.10 One ED network company supported the principle of effective regulatory oversight but noted that the timing of the request is curious and aligned with a severe tightening of the notional regulatory regime.

Reasons for our Decision

5.11 We considered stakeholder responses and the practical concerns raised by ED networks. These were very similar to those raised by GD&T networks to our Draft Determinations. For GD&T Final Determinations, we decided to amend the drafting of the condition to address stakeholder concerns and to clarify that the requirement to provide published rating reports is limited to where there had been a negative rating action or rating withdrawn, and when sharing of the report with Ofgem is permitted by the relevant rating agency. We have also clarified that the requirement can be fulfilled by sharing only the parts of a group company rating report that relate to the licensee.

5.12 We have considered stakeholder responses to the SSMC and note several network companies' concern that the requirement being triggered based on a single rating may trigger the requirement too soon. Similar concerns were raised by GD&T networks in response to our Draft Determinations.

5.13 As mentioned in our GD&T Final Determinations Finance Annex,[72] we are conscious that we regulate licensees with varying types of corporate and financing structures and that what might be problematic for one licensee with a particular type of financing structure may not be as problematic for a licensee with a different type of financing structure.

5.14 We have therefore decided that the requirement for a Financial Resilience Report will be triggered if the licensee's highest issuer rating held is at BBB/Baa2 (or equivalent) and is on negative watch, unless the licensee has any debt covenants linked to particular ratings from specified ratings agencies, in which case the requirement will also be triggered if any rating that is the subject of a debt covenant is one notch above the minimum covenant requirement and is on negative watch or the rating is lower than one notch above the minimum rating requirement. So, for example, if the covenant is for maintenance of an investment grade rating by S&P, the requirement for a Financial Resilience Report will be triggered if S&P's rating is at BBB and is on negative watch, or if the rating is lower than BBB.

5.15 We consider that this decision is proportionate and ensures that the timing of a requirement for a Financial Resilience Report is appropriate and proportionate to the potential consequences of the rating falling further.

5.16 We do not consider there to be any sector-specific reasons why this licence condition should be different to the GD&T sectors and so we expect to consult on the same drafting across sectors, subject to consultation on RIIO-ED2 Draft

[72] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021, page 88, para 6.6-6.16

Determinations and the RIIO-ED2 statutory licence modification process. Final GD&T licence drafting on this point can be found in the published directions.[73]

5.17 We do not agree with one ED network company's suggestion that inclusion of this additional reporting requirement reflects the deteriorating credit position of the notional company. We will assess the credit position of notional ED networks after business plan submission.

[73] Decision on the proposed modifications to the RIIO-2 Transmission, Gas Distribution and Electricity System Operator licences, February 2021

6. Corporation tax

We provide allowances within the price control for network companies to pay corporation tax. We expect these allowances to be broadly equal over time to the payments made to HMRC.

In this section, we summarise the July 2020 proposals, the consultation responses, and our decisions in this area.

Introduction

6.1 In RIIO-ED1, a financial model is used to calculate a tax allowance on a notional basis, as a proxy for efficient corporation tax costs, for each of the relevant licensees.

6.2 The RIIO-ED1 allowance is supplemented by two specific uncertainty mechanisms:

a) a tax trigger mechanism that reflects changes in tax rates, legislation and accounting standards

b) a tax clawback mechanism that claws back the tax benefit a licensee obtains as a result of gearing levels that are larger than assumed.

Our Decision

Purpose	To provide a tax allowance compensating companies for their efficient corporation tax payments.
Decision	To align the tax policy in ED2 with that of the GD&T sectors, which is to provide a notional tax allowance with a number of additional mechanisms and protections in place to enable us to monitor and review the allowance, if required.

Our Consultation Position

6.3 In the SSMC Finance Annex, for RIIO-ED2, we proposed to align our approach to corporation tax with the approach set out in our GD&T Draft Determinations, i.e. Option A, which was to continue with the notional allowance with a number of additional mechanisms to improve reporting and to enable us to review the allowance, if required, during RIIO-2.

6.4 We said that aligning our approach is reasonable because the rationale set out in the GD&T Draft Determinations in support of Option A also holds true for RIIO-ED2. This reflects our view that the main motivation for additional protections, i.e. to improve transparency, will be as beneficial for ED as it will be for GD&T, and that there are no distinct features of the ED sector that warrant a different approach to capital allowances or the Fair Tax Mark.

6.5 Additionally, the treatment of network companies by HMRC for corporation tax purposes does not differ on a sector-by-sector basis.

6.6 In relation to corporation tax, we asked the following questions:

- FQ13 Do you agree with our proposal to align the RIIO-ED2 tax approach with RIIO GD&T including: to pursue Option A; the approach to additional protections; the approach to capital allowances; and not to pursue the Fair Tax Mark certification as a requirement for RIIO-2?
- FQ14 Are there any reasons why this approach should differ for RIIO-ED2?

Responses to our Consultation

Tax policy and additional protections

6.7 All but one of the respondents to FQ13 agreed with our proposal to align the approach to corporation tax in ED2 with the GD&T companies, that is, to pursue Option A, a notional calculation with added protections.

6.8 The RIIO-2 Challenge Group supported either Option A or the "double lock"[74] approach to corporation tax for ED2, suggesting also that a sharing factor could be applied to tax outperformance.

6.9 SSE does not support the notional calculation or the added protections but instead endorses a pass-through policy for tax costs along with the Fair Tax Mark accreditation as an alternative to our proposed additional protections.

[74] As described in our RIIO-2 Sector Specific Methodology Decision: Finance, May 2019, and RIIO-2 Draft Determinations - Finance Annex, July 2020, the double lock represents the lower of the notional allowance and actual payments made to HMRC.

6.10 Three networks raised concerns around the proposed additional protections: ENWL raised concerns over the structure and balance of the tax review and suggested that further safeguards and guidance should be put in place to avoid placing unnecessary burden on networks. NPG does not support the introduction of a tax review, which it considers will create additional administrative burden for licensees. A number of ED networks were of the view that a materiality threshold should apply to the tax review mechanism.

6.11 DNOs were largely unsupportive of the proposal to introduce a board assurance statement noting that sufficient assurance is already provided through the networks' annual Data Assurance Guidance process that covers the networks' annual regulatory submissions.

6.12 Citizens Advice along with three of the DNOs suggested that the Fair Tax Mark should be included as a licence requirement, alongside the other proposed protections.

Capital Allowances

6.13 All but two networks were in favour of the proposed rolling forward of capital allowance balances; in many cases, they agreed with the proposal, noting that it would ensure consistency with the treatment of capital allowances in previous price controls.

6.14 All but two networks were supportive of our proposal to make capital allowance and allocation rates PCFM variable values, citing simplification of the PCFM as the main benefit.

6.15 ENWL and UKPN raised concerns over the proposal to make capital allowance allocations rates variable values, suggesting that this would add more complexity and introduce potential inconsistency in how the capital allocation rates are calculated between licensees without clear guidance.

Reasons for our Decision

6.16 We considered stakeholder responses and the practical concerns raised by DNOs. These were very similar to those raised by GD&T networks in response to our Draft Determinations proposals. In line with the GD&T Final Determinations, we have decided to implement the notional calculation and the additional protections for the reasons set out therein and those set out in the following paragraphs. We set out why we think that this is appropriate for the ED sector in paragraphs 6.4 and 6.5 above.

Notional allowance

6.17 Our view remains that the notional allowance is the most appropriate basis of calculation for the tax allowance. We have not identified any clear evidence that a change to either a pass-through or "double lock" would provide better value for the consumer and furthermore, we consider that it would introduce inconsistency in the calculation of the allowance, which may be to the advantage of some networks and the disadvantage of others.

6.18 No further evidence has come to light through our internal analysis or from stakeholder responses that would suggest that this approach to the corporation tax allowance should differ for ED2 companies.

Capital allowances

6.19 All but one of the DNOs supported our proposal to roll forward the notional pool balances into ED2. This ensures that consumers continue to benefit from tax relief in respect of the asset expenditure they have funded. Changing the opening pool balances would represent a shift away from the notional calculation and may result in a gain for some networks whilst others would lose out with no clear consumer benefit.

6.20 The reason we have decided to make capital allowance allocation rates variable values is to better enable the notional allowance to reflect networks' actual tax payments without the use of a complex macro, as was the process in RIIO-1.

Additional protections

6.21 All but one of the DNOs were supportive of the proposed tax reconciliation and associated tax review in principle but expressed a number of concerns about the structure and the process underlying the review mechanism. As stated in our Final Determinations Finance Annex,[75] our intention is to improve transparency in this area through more robust reporting and monitoring but not to place unnecessary burden on networks at the expense of the consumer.

[75] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 100, para 7.56

6.22 As such, we have decided to introduce the tax reconciliation and associated tax review protections but to apply a materiality threshold as a trigger for the tax review to ensure that any additional administrative burden on DNOs is proportionate. The tax reconciliation and review process will enable us to monitor the tax allowance and ensure that we are able to adjust if required to ensure that no material, unexplained differences between the tax allowance and actual tax paid by DNOs. We will consult on the appropriate level of the threshold in our ED2 Draft Determinations.

6.23 Our view remains that it is appropriate to retain the tax clawback mechanism from RIIO-1 as it captures the tax benefit received by networks with higher than notional gearing, promoting tax legitimacy within the sector.

6.24 We have also decided to retain the tax trigger mechanism from RIIO-1 to enable changes in tax rates to be reflected in the allowance, because it is a key element of the tax policy that is supported by all stakeholders and provides value for consumers. However, we will replace the PCFM macro used to calculate the impact of changes in tax rates, with PCFM variable values that can be updated at each Annual Iteration Process.

6.25 While DNOs were largely unsupportive of the proposed introduction of a tax board assurance statement, our view remains that a board assurance statement will provide specific assurance over the accuracy and reasonableness of the values in the tax reconciliation beyond that of the Data Assurance Guidance requirements and should require very little additional resource from the companies who will already be populating the reconciliation.

6.26 Our view remains that there are no distinct features of the ED sector that warrant a different approach to the Fair Tax Mark. As we stated in our GD&T Final Determinations we do not think this would provide consumer value nor necessarily ensure tax legitimacy so we do not propose to make this a requirement for RIIO-2.

7. Indexation of RAV and calculation of allowed return

Inflation assumptions are required to calculate the baseline allowed return and, on an ongoing basis, the value of the Regulated Asset Value. We summarise progress to date, responses we received to our Sector Specific Methodology Consultation, and our analysis of these. We conclude with a decision to implement an immediate switch at the beginning of RIIO-ED2, from RPI to CPIH.

Introduction

7.1 For previous price controls, including RIIO-1, we decided to use the Retail Prices Index (RPI) to index the RAV and to allow returns in real terms.

7.2 However, RPI is no longer seen as a credible measure of inflation.[76] The Office for National Statistics (ONS) has now adopted CPIH as the lead measure of inflation for household costs. ONS prefers CPIH as a measure of consumer prices because it is more comprehensive than CPI. CPIH includes owner occupiers' housing costs and council tax and therefore significant elements of household spend.

7.3 Other regulators are using RPI less heavily within their respective price control frameworks. In 2014, Ofcom concluded that CPI was preferable to RPI. In 2015, the Water Industry Commission for Scotland (WICS) started to use CPI. More recently, Ofwat determined in December 2017 that it would use CPIH. In March 2018, ORR proposed to use CPI instead of RPI.

7.4 In the ED2 Framework Decision[77] in December 2019, we confirmed that we would use either CPI or CPIH for inflation measurement in calculating both RAV and allowed returns.

Our Decision

Purpose	RIIO-2 price controls offer inflation protection to investors through inflation adjustments to the Regulatory Asset Value (RAV). Returns on capital are also provided in real terms. Together these approaches make inflation a key parameter for the RIIO-2 price control.

[76] https://www.statisticsauthority.gov.uk/archive/reports---correspondence/current-reviews/uk-consumerpricestatistics---a-review.pdf Summary and recommendations
[77] RIIO-ED2 Framework Decision, December 2019, updated January 2020, page 42, para 2.127

Decision	To implement an immediate switch from RPI to CPIH at the start of RIIO-ED2 for the purposes of calculating RAV indexation and allowed returns.

Our Consultation Position

7.5 In July 2020,[78] we proposed to align RIIO-ED2 with the GD&T approach. This involves implementing an immediate switch from RPI to CPIH from RIIO-ED2 onwards for the purposes of calculating RAV indexation and allowed returns. We said that we did not see any reason to treat the ED sector differently to the GD&T sectors.

Responses to our Consultation

7.6 Stakeholders generally supported our proposal to implement to CPIH at the start of the RIIO-ED2 price control, although some network companies preferred CPI over CPIH inflation.

7.7 Most network companies sought assurance that the switch should be NPV neutral.

7.8 One network company (ENWL) noted that any move away from RPI would be problematic for networks. In its view, if CPI or CPIH is adopted then this could not have been foreseen by network companies and debt allowances should be adjusted to include the cost of removing any resulting basis risk.

Reasons for our Decision

7.9 In line with GD&T, we will implement an immediate switch from RPI indexation to CPIH indexation. The primary motivation for the change is that RPI is no longer seen as credible measure of inflation. A good measure of inflation improves legitimacy and accuracy for both investors and consumers.

7.10 We consider that NPV-neutrality is best secured by a one-off point-in-time switch from RPI to CPIH reflecting the expected difference at that time. This is because of complexity and definitional issues that would arise if we attempt to secure unconditional NPV neutrality over time, relative to multiple measures of inflation.

[78] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 – Finance, July 2020, page 21, para 7.5

Note that, in general, our methodologies for the cost of equity and the cost of debt emphasise expectations, not outturns; a true-up would be inconsistent with this.

7.11 An immediate switch ensures a "clean break" and avoids RPI inflation from persisting through the back door. We have previously stated our reasons for favouring an immediate switch in the GD&T2 Sector Specific Methodology Consultation.[79] We believe those reasons also hold true for the electricity distribution sector as we have seen no evidence to suggest RIIO-ED2 should be treated differently. In addition, the immediate switch provides consistency across all RIIO sectors.

Next Steps

7.12 The GD&T RIIO-2 Price Control Financial Models implement the switch to CPIH by growing the RPI index as of March 2021 by the CPIH rate of inflation thereafter. This was implemented in this way following stakeholder responses to the statutory consultation on the GD&T RIIO-2 licence modifications.[80] This method remains the default for business plan working assumptions; however, Ofgem intends to consult on areas of potential inconsistency given the lateness of the changes and this consultation may include responses on how the switch has been implemented. Any changes as a result of this consultation will be reflected in updated business plan data templates and as revised working assumptions for inflation.

7.13 We will also consider the point raised by ENWL in relation to RPI debt and basis risk further at the Draft Determinations stage. We note that the 0.25% additional cost of borrowing allowance determined for GD&T and included in the debt allowance working assumption for ED2 business plan purposes does include an allowance for potential basis mitigation. However, this will be considered further alongside allowed return on debt calibration more generally at the Draft Determinations stage.

[79] RIIO-2 Sector Specific Methodology Annex: Finance, December 2018, page 66
[80] Decision on the proposed modifications to the RIIO-2 Transmission, Gas Distribution and Electricity System Operator licences

8. Other finance issues

In this chapter we address the following financial issues for the ED sector:

1. Regulatory depreciation and economic asset lives
2. Capitalisation rates
3. Notional gearing
4. Equity-related notional company assumptions
5. Pension scheme established deficit funding
6. Directly remunerated services
7. Amounts recovered from the disposal of assets
8. Closing RIIO-1
9. Forecasting during RIIO-2

Regulatory depreciation and economic asset lives

Introduction

8.1 Our existing policy in RIIO-ED1 is to depreciate the RAV at a rate that broadly approximates to the useful economic life of the network assets and incentivises investment efficiency.

8.2 It is an important reminder that, following the introduction of the totex approach in DPCR5/RIIO-1, the RAV no longer precisely corresponds to physical assets. Rather, the RAV simply represents the balance of unrecovered financial investment in the networks and the licensee’s share of incentivised out- or underperformance.

8.3 A return is paid on the RAV through the allowed cost of capital, and the RAV is repaid through depreciation allowances. Therefore, in our view the rate of depreciation should be set so that different generations of consumers pay network charges broadly in proportion to the value of network services they receive.

8.4 For RIIO-ED1, the depreciation approach is currently transitioning from a 20-year straight-line asset life (as at 31 March 2015) to a 45-year straight-line asset life (by 31 March 2023).[81]

[81] RIIO-ED1: Final Determinations, November 2014

Update and Next Steps

Purpose	Regulatory depreciation assumptions determine the speed that RAV additions are re-paid by consumers.
Next Steps	We confirm that we are open to exploring further changes in the depreciation methodology in line with the economic principle of intergenerational fairness. Part of this assessment will involve careful consideration of the useful economic lives of network assets and therefore appropriate regulatory depreciation rates. Network companies should consider regulatory depreciation and asset lives as part of their RIIO-2 business plan submissions and provide evidence to demonstrate that any proposed changes are appropriate and justified.

Our Consultation Position

8.5 We did not have any sector-specific proposals but invited views or evidence relating to the useful economic lives of assets that may impact the assessment of appropriate depreciation rates.

Responses to our Consultation

8.6 The majority of network companies believe that they should be able to propose different asset lives as levers to improve financeability and that this is an area that should be kept under review as Business Plans are developed.

8.7 Specifically, SPEN and WPD are supportive of maintaining the RIIO-ED1 approach and see no need to alter the existing RIIO-ED1 policy of depreciating the RAV over 45 years.

8.8 In response[82] to the GD&T SSMC in December 2018,[83] Northern Powergrid (NPg) suggested that it may be appropriate to fine tune the asset life assumption to maintain a steadier level of charges across time.

8.9 Specifically in response to our July consultation,[84] NPg said that Ofgem should set the asset life for business-as-usual levels of investment at the current average (ca. 25 years), and retain flexibility to use the longer 45-year asset life for any significant additional investment. They set out three core arguments in support of

[82] See "Northern PowerGrid" folder, response to finance questions file, page 25
[83] RIIO-2 Sector Specific Methodology Consultation, December 2018
[84] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 – Finance, July 2020

this approach: (i) current customers have not been overpaying under 20-year asset lives, (ii) the RAV and network charges would increase significantly if 45-year asset were maintained, and (iii) the 45-year asset life policy could strain financeability as electricity distribution heads into the net zero transition.

Reasons for our position

8.10 We consider it is too early to decide on the useful economic lives of assets and treatment until we receive information from business plans and are able to fully consider the financeability and intergenerational fairness impacts of a 45-year economic life in the context of planned levels of expenditure during RIIO-ED2. The assumptions and scenarios underpinning business plans will feed into our review of regulatory depreciation, which we will consult on in Draft Determinations.

Next steps

8.11 Network companies should consider regulatory depreciation and asset lives as part of their RIIO-ED2 business plan submissions and provide evidence to demonstrate that any proposed changes are appropriate and justified. Ofgem will then review and consult on any changes in Draft Determinations.

Capitalisation rates

Introduction

8.12 Capitalisation rate refers to the level of company expenditure paid for by consumers over time ('slow money'), rather than immediately ('fast money'). In general, capitalisation rates broadly reflect the mix of capital and non-capital expenditure in company spending plans.

Update and Next Steps

Purpose	Capitalisation rates determine the proportion of costs added to the RAV with the remainder recovered within the year incurred.
Update	We will set baseline capitalisation rates at the natural rate and uncertainty mechanism capitalisation rates on the best available estimate of the likely natural rate.

Our Consultation Position

8.13 In the July consultation,[85] we proposed a consistent capitalisation policy for ED as used for the GD&T sectors such that rates reflect each licensee's proportions of opex and capex. We were also open to views on whether rates are updated ex-post to reflect outturn capex and opex proportions, for one or more categories of totex.

Responses to our Consultation

8.14 The majority of stakeholders supported licensee-specific rates for the ED sector.

8.15 One network company (NPg) does not support licensee-specific rates and instead prefers a benchmarked sector average so that all companies have the same capitalisation rates.

8.16 The RIIO-2 Challenge Group and Citizens Advice supported an ex-post update; all of the network companies as well as Centrica did not support the use of ex-post adjustments for capitalisation rates.

Reasons for our Decision

8.17 Submissions generally propose that capitalisation rates should reflect the accounting distinction between opex and capex, and therefore be 'natural' with capex costs being 100% capitalised and opex costs 0% capitalised.

8.18 Companies generally propose ex ante fixed capitalisation rates and this is consistent with the approach taken in the GD&T sectors. If, after receipt of business plan submissions, ex ante determination of the natural rate is materially uncertain we may consider alternatives to fixed ex ante capitalisation rates and we would consult on this at Draft Determinations.

8.19 Network companies should submit fast/slow money splits as part of the RIIO-2 business plan submissions, providing evidence that their proposed capitalisation rates are appropriate and justified.

[85] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 – Finance, July 2020, page 2, para 8.16

Notional gearing

Introduction

8.20 Notional gearing represents the assumed percentage of net debt to RAV for the notional company. This in turn impacts the percentages of RAV that attract debt and equity allowances.

Update

Purpose	To provide a reference point for the notional company for the purposes of calculating the weighted average cost of capital (WACC) with consideration of the risks network companies face, rating agency views on gearing levels for investment grade regulated networks, balancing an appropriate cost of capital and the impact medium term market conditions have on debt servicing
Next Steps	To review notional gearing assumptions after receipt of business plans.

Our Consultation Position

8.21 We proposed that ED network companies assess the overall risk of their business plans and make realistic and well-justified proposals in their business plans for notional gearing.

8.22 We also proposed to review notional gearing in light of the riskiness of the overall price control settlement and the ability of the notional efficient company to sustain downsides.

8.23 We suggested that there are a number of issues to be considered when setting notional gearing, including:

- cashflow volatility (as affected by totex spend and fast/slow money split, incentives and uncertainty mechanisms)
- the companies' business plans (including proposed transitional arrangements and notional equity injections)
- financeability.

Responses to our Consultation

8.24 Some ED networks commented on the appropriateness or otherwise of adjustments to notional gearing for financeability reasons; these are summarised and responded to in Chapter 4.

8.25 We are not aware of any other representations from stakeholders on notional gearing at this stage in relation to the other considerations mentioned in the SSMC[86] for setting notional gearing. However, we do not expect these considerations can be analysed at this stage and would expect more analysis and views will be provided by the ED networks at the business plan stage and by Ofgem at the Draft Determinations stage when more information will be available regarding the risk and financial profile of RIIO-ED2.

Next Steps

8.26 We believe it is too early to decide on the level of notional gearing until business plans have been assessed and the overall price control package is known.

8.27 However, we also recognise that business plans require an input for this variable and that it is preferable that ED networks all start with a consistent assumption from which to then consider alternatives and/or cost benefit analysis. The suggested working assumption of 60% represents a 5% reduction from RIIO-ED1 levels, but would be consistent with GD and GT Final Determinations notional gearing levels and is more likely to provide a meaningful starting point for ED financeability assessment than a 65% notional gearing assumption. However, it is, at this stage, only a working assumption, and we encourage ED networks to undertake analysis and stakeholder engagement on the relevant trade- offs of different gearing levels and/or ratings targets.

8.28 We intend to conduct further analysis following receipt of company business plans.

8.29 Network companies should assess the overall risk of their business plans and make realistic and well-justified proposals in their business plans for notional gearing. Network companies must also demonstrate in their business plans that they have conducted a cost and benefit analysis of different notional gearing levels.

[86] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 – Finance, July 2020, page 26, para 8.20

8.30 We will continue to review notional gearing in light of the riskiness of the overall price control settlement and the ability of the notional efficient company to sustain downsides.

Equity-related notional company assumptions

Introduction

8.31 Notional equity issuance costs are transaction costs associated with notional equity issuance during a price control period. The RIIO-1 assumption was that equity issuance costs should attract an allowance of 5% of the value of any notional equity raised.

8.32 Dividends are cash amounts that are paid to shareholders out of profits or reserves. Our notional company modelling requires an assumption for dividends. In RIIO-1, this was set at a level lower than the allowed return on equity in recognition that shareholders would earn some of their return through capital growth (i.e. RAV growth).

Update

Purpose	To provide reasonable assumptions for modelling an efficient notional company. The efficient company may incur costs raising new equity – either publicly or privately - and will, from time to time, pay dividends to investors, both of which we wish to reflect in our assessment of allowed revenues and financeability.
Next Steps	To confirm notional equity issuance cost allowances and notional dividend assumptions at Final Determinations, following review of business plans.

Our Consultation Position

8.33 We proposed to align our approach in RIIO-ED2 with that proposed in the GD&T Draft Determinations, which was to continue to allow 5% for equity issuance in the absence of evidence to the contrary. We proposed to review this assumption after receipt of business plans, in line with the approach we have taken to the GD&T sectors; we said that we see no current reason for a distinct approach to ED in this respect.

8.34 We did not set out a consultation position in relation to a notional company dividend assumption. This is because it is too early to assess an appropriate level without first assessing business plans and proposed levels of investment and growth of ED companies.

Responses to our Consultation

8.35 We did not ask a specific question relating to notional equity issuance costs and we are not aware of any submissions from stakeholders providing evidence on this point.

8.36 We did not ask a specific question related to notional dividends but did receive some comments on the topic. SPEN noted several theories as to why investors care whether companies pay dividends. These theories seek to explain why the Modigliani and Miller dividend irrelevance theorem, which states that shareholders are indifferent between a company paying dividends and retaining the earnings internally, does not hold. SPEN made mention of four main theories: clientele effects; signalling and asymmetric information; term premium; and agency theory (Free Cash Flow Theory of the firm). In particular, they argued that there is time inconsistency problem - investors are unable to bind future consumers, regulators and companies to allow higher pay-outs in the future to compensate for lower pay-outs now.

8.37 UKPN argued that a long-term reduction in dividend is likely to increase investor risk perception of the industry and ultimately increase the cost of capital.

Next Steps

8.38 We received a limited amount of analysis and evidence on equity issuance costs in response to our GD&T Draft Determinations, which we discussed in the GD&T Final Determinations Finance Annex.[87] This information broadly supported the assumption of 5% equity issuance costs, which we maintained from Draft to Final Determinations for GD&T.

8.39 We note that the notional dividend assumption for ED1 was 5% when the assessed cost of equity was 6% or 6.4% RPI real (slow track and fast track ED networks respectively). Given the likely reduction in the assessed cost of equity

[87] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 138-139, para 11.96-11.98

for ED2 we currently believe it is likely to be appropriate to also have a lower notional dividend assumption than ED1.

8.40 Although RAV growth will be assessed following business plan submissions, we believe it is reasonable at this stage to expect ED companies will see some real RAV growth in ED2 and therefore we consider a dividend assumption lower than the assessed cost of equity may be reasonable.

8.41 We have considered the theories that SPEN raised regarding why, contrary to Modigliani and Miller's theorem that dividend policy cannot change the value of a firm, companies nevertheless pay dividends. It is difficult or impossible for a regulator to consider clientele effects - that some types of investors may prefer higher dividends. We do not control who owns network utilities shares. Similarly signalling effects or agency problems between investors and management of utility companies is a problem for their corporate governance not a factor that we as regulators can address.

8.42 SPEN said that there may be a term premium demanded by equity investors if returns are further in the future because dividends are lower. In line with the Modigliani and Miller theorems and the CAPM, which is a one period model, we believe that investors assess companies based on future returns and that companies that pay higher dividends do so because they identify fewer opportunities to profitably deploy capital in their own businesses. The question of a term premium would lead us into considering multi-factor models of equity returns.

8.43 The UKRN Cost of Capital Report investigated factor models as an alternative to using CAPM and concluded that "…whilst factors might influence investor expectations they do not change the cost of capital."[88]

8.44 We agree with the UKRN authors that we should continue to use the CAPM model to calibrate allowed returns, and that there is no obvious case for trying to incorporate multi-factor models into our determinations.

8.45 On the time inconsistency problem, we believe that investors face this challenge in all companies, whether they will earn the returns in future that they expect for investments made now. In our view, utilities are in fact more predictable than companies which operate in more competitive markets. The history of UK utility

[88] Estimating the cost of capital for implementation of price control by UK Regulators.

regulation suggests that investors have been able to earn at least or more than their cost of equity over time.

8.46 Under the Modigliani and Miller theorem,[89] investors are motivated by total returns and indifferent to the level of dividends, so we continue to believe that RAV growth and dividend assumptions should be considered together. Therefore, contrary to UKPN's assertion, investors will rationally consider their total return from their investment not just the dividend yield they receive now.

8.47 We will decide on the appropriate notional dividend assumption after business plans have been submitted, when any further evidence will have been reviewed.

8.48 A working assumption of 5% for equity issuance costs will be used for business plan purposes, based on information provided in GD&T sector and the current lack of reason for a distinct approach to ED. To the extent ED network companies have evidence to support a distinct approach or assumption, we encourage them to submit this in their business plans.

8.49 A working assumption of 3% of equity RAV will be used for notional company dividends for business plan purposes. This appears reasonable relative to the working assumption for the assessed cost of equity and is consistent with the assumption used in GD&T Final Determinations. We do not currently have evidence to support different notional dividend assumptions for different sectors. To the extent ED network companies have evidence to support a distinct approach or assumption, we encourage them to submit this in their business plans.

Pension scheme established deficit funding

Introduction

8.50 We have a long-standing commitment to consumer funding of deficits in defined benefit pension schemes, which were generally in existence before the energy network sector was privatised. To reflect this commitment, our price controls provide a form of pass-through funding by consumers of 'Pension Scheme Established Deficits' (those attributable to service before certain specified cut-off dates).

[89] See Merton H. Miller; Franco Modigliani, "Dividend Policy, Growth, and the valuation of Shares", The Journal of Business, Vol. 34, No. 4 (Oct, 1961). https://www.jstor.org/stable/2351143?seq=1

8.51 We update the networks' pension allowances through a triennial review, the policy and process for which we updated in April 2017.[90] We completed the last review in November 2020[91]. The next triennial review will be undertaken in November 2023 and will set the established deficit pension allowance from 1 April 2024. This review will sit outside the RIIO-2 price control review.

Update and next steps

Purpose	To provide a pass-through style allowance for networks' pension scheme established deficit costs.
Next steps	DNOs should use the pension allowances as directed following the most recent triennial review. No changes are proposed to the pension-setting policy for ED2. This is in line with our final determination for GD & T companies.

Our Consultation Position

8.52 We proposed no changes to the pension-setting process for RIIO-ED2 and said that we expect ED network companies to assume pension allowances for RIIO-ED2 that reflect the outcome of the triennial review.

Update and next steps

8.53 We did not receive any stakeholder responses in relation to our proposed pensions policy, i.e. setting the pensions allowance based on the outcome of our triennial reviews. As such, our view remains that it is appropriate to align the policy for ED2 with that of GD&T by making no change to the pension-setting process.

8.54 We said in the SSMC that we would expect that DNOs to assume pensions allowances based on the outcome of the recent triennial review as has been the case for RIIO-1 and the GD & T companies and we have decided to retain this approach for ED2.

[90] Decision on Ofgem's policy for funding Pension Scheme Established Deficits, April 2017
[91] Revised pension allowance values and completion of 2020 reasonableness review, November 2020

Directly remunerated services

Introduction

8.55 Directly Remunerated Services (DRS) are specific activities of the network companies that are settled outside of the normal regulatory price control. Companies are allowed to charge their customers directly for certain services performed. For instance, a network company may enter into a commercial agreement with a third party such as a telecoms provider to lease out unused space on its grid infrastructure for the placement of satellite dishes or pylons. The telecoms provider will then pay a rental fee directly to the network company, according to the terms of that agreement. These services are directly remunerated" by the customer rather than paid to the DNO through Distribution Use of System charges.[92]

8.56 The policy intent across sectors is to avoid consumers paying for a service for which the network companies have already been remunerated. Costs associated with these services are paid for directly by the specific party (or parties) requiring the service. As such, these costs should not be factored into the network companies' cost allowances, to avoid double-counting.

8.57 In RIIO-1, networks forecast the expected revenues and costs from providing these services. Where the actual revenue earned or cost incurred differs from original forecasts, in some cases, it may be appropriate to true-up this difference. The need for a true-up depends on the category of services and whether the costs and revenues are incentivised.

Our Decision

Purpose	To avoid consumers paying for a service for which the network companies have already been remunerated.
Decision	To continue with the RIIO-ED1 approach to DRS, but with the annual true-up of DSR via the Annual Iteration Process (AIP). The regulatory treatment of Customer Load Active System Service (CLASS)[93] will be considered further.

[92] Schedule 2A: RIIO-ED1 slowtrack CRC licence changes, February 2015, page 311, Chapter 5, Appendix 1
[93] Ofgem is currently considering the regulatory treatment of DNOs providing network voltage control and network management services, via the remote management of deployed network assets, to the ESO for its balancing services activity. This service is commonly known as Customer Load Active System Service (CLASS). Further details can be found on Regulatory treatment of CLASS as a balancing service in RIIO-ED2 network price control.

Our Consultation Position

8.58 We did not make any specific proposals but instead asked stakeholders whether there are any reasons why the RIIO-ED2 approach to directly remunerated services should differ from that in RIIO-ED1.

Responses to our Consultation

8.59 The ten stakeholders who responded to our consultation question generally saw no reason to change from the RIIO-ED1 approach.

8.60 However, ENWL recommended creating a tenth DRS category which is specifically to accommodate commercial transactions across networks that fall outside of the Co-ordinated Adjustment Mechanism (CAM),[94] such as the recent examples of DNOs meeting Transmission or System Operator needs which have been arranged on a commercial basis, such as the Accelerated Loss of Mains Change Programme (ALoMCP).[95]

8.61 Centrica expressed the concern that some DNOs have used the DRS8 category for revenues earned from selling electricity balancing services to the ESO using Customer Load Active System Service (CLASS) technology.[96] Centrica consider that the arrangements relating to DRS8 should be updated to clarify that it should not be used to enable DNOs to participate in competitive energy markets. Association for Decentralised Energy (ADE) also expressed concerns with the CLASS activity and whilst they considered the CLASS provision via market-based mechanisms to be marginally preferable to provision as a price-controlled activity, it was ADE's view that participation of CLASS in balancing services should be prohibited, regardless of the solution.

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[94] For further information on the Coordinated Adjustment Mechanism (CAM) Re-opener, please refer to page 69 in the RIIO-2 Final Decision - Core Document, December 2020
[95] The ALoMCP is a joint initiative with the NGESO, Energy Networks Association, distribution network operators and independent distribution network operators. Further details can be found at https://www.nationalgrideso.com/industry-information/accelerated-loss-mains-change-programme-alomcp
[96] Ofgem is currently considering the regulatory treatment of DNOs providing network voltage control and network management services, via the remote management of deployed network assets, to the ESO for its balancing services activity. This service is commonly known as Customer Load Active System Service (CLASS). Further details can be found on Regulatory treatment of CLASS as a balancing service in RIIO-ED2 network price control

Reasons for our Decision

8.62 We note stakeholder feedback on the regulatory treatment of CLASS and we are planning to consult further on this policy area in due course.

8.63 As per our RIIO-ED1 policy, allowed revenue will reflect the expected revenues and costs from providing these services. Where the actual revenue earned or cost incurred differs from original forecasts, in some cases, it may be appropriate to true-up this difference. The need for a true-up depends on the category of services and whether the costs and revenues are incentivised. Ofgem's proposals relating to the Annual Iteration Process (AIP) are discussed further below.

8.64 We note that stakeholders that the ten stakeholders who responded to our consultation question generally saw no reason to change from the RIIO-ED1 approach. We consider that the RIIO-ED1 approach to the different categories of DRS is appropriate for RIIO-ED2, but we will continue to review the case for an additional activity category explicitly to cover activity that relates to services provided by networks to the electricity system operator but which fall outside of CLASS. Where appropriate, we will consult on any proposed changes to our classification of DSR activities.

8.65 As noted in our RIIO-T/GD2 decision documents,[97] we aim to ensure consistency in the numbering of the DRS categories across all sectors, and hence we intend to renumber the DRS categories in the ED sector in due course to bring them into alignment with the other sectors. Further details of the renumbering of the categories will be provided as part of the Business Planning Data Template guidance.

Amounts recovered from the disposal of assets

Introduction

8.66 Where network assets are no longer required, network operators may dispose of or relinquish operational control, subject to the Authority's consent.[98] They may also recover from third parties any costs in respect of damage to their network. Some of these transactions can include the disposal of land.

[97] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 122, para 11.28 to 11.29
[98] Standard Licence Condition 26 sets out the policy relating to the disposals of assets.

8.67 In RIIO-ED1, the policy on the treatment of financial proceeds is that cash proceeds are netted off against totex from the year in which the proceeds occur.

Our Decision

Purpose	To appropriately incentivise networks to dispose of assets no longer required.
Decision	To continue with the RIIO-ED1 policy that disposal proceeds are netted off against totex.

Our Consultation Position

8.68 We proposed a continuation of the RIIO-ED1 approach for RIIO-ED2, namely that proceeds from the disposal of assets should be netted off against totex from the year in which the proceeds occur. As discussed in the May 2019 SSMD for the transmission and gas distribution sectors, the ED1 approach maintains incentives, and is well supported by DNOs.[99]

8.69 We also proposed that the DNOs include as part of their business plans clear forecasts of, and sufficient detail on, any asset disposals during RIIO-ED2. Further, any proposed change from the ED1 approach should be clearly explained in terms of consumer benefit.

Responses to our Consultation

8.70 The eight stakeholders who commented on this policy area expressed general support for the continuation of the RIIO-ED1 approach.

8.71 Citizens Advice expected that networks would undertake more detailed planning to anticipate the trade-offs in the short and long term impacts on consumer benefit.

8.72 NPg and WPD recommended that amounts recovered from third parties for network damage are included within totex as cost recoveries and are not classified as disposal proceeds.

[99] RIIO-2 Sector Specific Methodology Decision – Finance, May 2019, page 118

Reasons for our Decision

8.73 We have decided that where a company has disposed of an asset, we will continue to net the cash proceeds off against Totex from the year in which the proceeds occur, which will go through the Totex incentive mechanism as per RIIO-ED1.

8.74 The proceeds of asset disposals include:

a) cash proceeds of sale at an arm's length to a third party external to the licensee group
b) transfer at an arm's length fair market value of assets to a company within the licensee group
c) cash proceeds of sale of assets as scrap
d) amounts recovered from third parties, including insurance companies, in respect of damage to the disposed assets.[100]

8.75 The RIGs will provide guidance on how companies should report on disposals of assets, and how the amounts recovered from third parties for network damage are reported within totex.

8.76 We consider that the deduction of net proceeds from Totex provides an appropriate level of incentivisation for the network to achieve the best sale price and allows consumers to benefit from the sale of assets no longer required. For RIIO-ED2, the Totex adjustment will be capitalised in the normal way, with a proportion flowing through as (negative) fast money, and the rest being deducted from RAV. However, we consider there is a case to treat all of the incentivised net proceeds as fast money, especially for those assets already fully depreciated. Treating the net proceeds as fast money would better allow those consumers who have already paid for the assets, rather than future consumers, to gain from the sale proceeds. We will consider this further during RIIO-2 and consult on it, as appropriate.

8.77 As set out in RIIO-2 Final Determinations for the transmission and gas distribution sectors,[101] we consider it appropriate for Ofgem to review sales of assets to a company within the licensee group. It reflects existing practice in RIIO-1 and in the water sector and offers an important protection for consumers against the

[100] Amounts recovered from third parties, including insurance companies, in respect of damage to assets which remain with the licensee will continue to be reported as cost recoveries and not as disposal proceeds.
[101] For further details of the policy to sales to companies within the same group, please see RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 122-124

transfer of assets at below market price. As part of Draft Determinations, we will set out our proposals in relation to the electricity distribution sector and consult further.

Interest on prior year adjustments (time value of money)

Introduction

8.78 Ofgem makes three kinds of revenue true-ups relating to prior years, to which it applies a rate of interest:

a) historical revisions to PCFM inputs (e.g. such as reporting totex underspend and reducing revenue accordingly)
b) incentive, or other income 'earned' in previous years, forming part of allowed revenue two years after
c) correcting charging error for amounts over- or under-recovered relative to allowed revenue (they set out to collect 100, but actually collected 105).

8.79 In RIIO-1, there is a variety of interest rates applied to these adjustments:

- nominal vanilla WACC, for historical revisions to PCFM model inputs
- Bank Rate + 150bps for GT, GD, ED charging errors
- Bank Rate + 200 bps for ET charging errors
- Bank Rate only, or nominal WACC for some incentive revenue earned by past performance

8.80 Vanilla WACC[102] is referred to in the RIIO-1 financial handbooks as 'the time value of money'. However, the variety of interest rates applied to other uplifts arose for different reasons. Ofgem considers the time value of money to be the marginal cost of capital for revenues switched between years during the price control, or the potential benefit or loss from applying no interest rate.

8.81 We see advantages to applying one consistent time value of money (TVOM) approach to all corrections and revisions, we recognise that any proposal to apply

[102] Vanilla WACC is the weighted average cost of capital using a pre-tax cost of debt and a post-tax cost of equity. Ofgem sets a vanilla WACC allowance for the network companies as part of the RIIO price control.

the cost of debt (CoD) to totex-driven revisions would be a move away from the current approach.

8.82 Our RIIO-2 approach to setting Allowed Revenue as part of the AIP will allow the networks to better reflect their latest forecasts of expenditure and allowances and so should reduce the magnitude of any revisions. This provides some support for a CoD-based approach. However, we recognise it will take time for Ofgem and industry to gain experience of the new regime and that industry generally believes that we should continue with the current WACC approach.[103]

Next Steps

8.83 We will continue to review the case for the application of one TVOM applicable to all revisions and corrections and will engage further with other GB regulators and with industry on this issue, drawing upon the experience of the new RIIO-2 AIP arrangements. Where appropriate, we will consult on any proposed changes to our current TVOM approaches.

Closing RIIO-1

8.84 Some areas within the ED1 price control need to be settled once the price control has ended and outturn data becomes known. These include uncertainty mechanisms, Network Output Measures, incentives, proceeds from disposal of assets and the final RIIO- ED1 MOD[104] adjustments, each of which may have different treatments.

8.85 Ofgem will engage with DNOs regarding the mechanics of RIIO-ED1 close-out and will consult again at Draft Determinations. At present, our thinking is that closeout adjustments will be made in one of three ways, in line with the GD&T processes:

- applying adjustments to the final RIIO-ED1 PCFM which then feed the RIIO-ED2 PCFM, including calculating a "legacy MOD" value for the revenue impact

[103] Details of the responses to Ofgem's TVOM proposals in the RIIO-2 Transmission, Gas Distribution and Electricity System Operator sectors can be found on RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 126

[104] The MOD term is used to modify the licensee's Opening Base Revenue Allowance for each Regulatory Year t during the price control. The value is calculated at each Annual Iteration Process (AIP) and reflects the difference between the recalculated base revenue figure for any licensee for the relevant year t and the Opening Base Revenue Allowance as set in Final Proposals. It also reflects the difference between the recalculated base revenue figures held in the PCFM for Relevant Years t-1 and earlier before the AIP and the recalculated base revenue figures for the licensee held in the PCFM for the same years after the AIP.

and historical RAV additions, depreciation, and opening capital allowance pool balances for RIIO- ED2

- extending the RIIO- ED1 Revenue RRP for areas that will impact RIIO- ED2 allowed revenues, such as incentives that operate on a two-year lagged basis. These values will enter the RIIO-2 PCFM as cash adjustment
- by a bespoke legacy mechanism, if there are reasons the adjustment would not be suited to the previous approaches.

Forecasting during RIIO-2

8.86 The purpose of the RIIO-1 PCFM is primarily to calculate MOD, and predominately reflects the forecast of expenditure made at the beginning of the price control. Actual expenditure is reflected in the following regulatory year, resulting in a 2-year lag before adjustments flow through to Recalculated Base Revenue, as directed by Ofgem.

8.87 To reflect updates more quickly, reduce the magnitude of true-ups, and streamline reporting our current thinking is that ED2 will incorporate forecasts in a similar manner to GD&T2 Final Determinations.[105] PCFM variable value guidance for GD&T is under development; for common variables, we expect the guidance will be similar for ED2. We intend to consult on this at Draft Determinations, and we will engage with DNOs regarding the ED specific variable values through PCFM and licence working groups throughout the process to Final Determinations.

[105] RIIO-2 Final Determinations – Finance Annex (REVISED), February 2021, page 129

9. Transparency through RIIO-2 reporting

This section sets out Ofgem's decisions on the annual reporting requirements relating to executive pay and licensees' dividends policies during the RIIO-2 price control period. It summarises our proposals, the consultation responses, and our views on these.

Introduction

9.1 When developing the Regulatory Financial Performance Reporting (RFPR), we discussed our proposal with the network companies to require disclosure of executive remuneration. We also proposed to provide details of their dividend forecasts as part of the licensees' annual RFPR. Concerns were expressed regarding these proposals, so they were not implemented for 2018-19 or 2019-20[106] reporting.

9.2 While it is not our intention to design or put restrictions on licensees' remuneration policies or strategies, we do expect these policies to be transparent and in the best interests of consumers and stakeholders in supporting the licensees' regulated businesses.

9.3 It is also not Ofgem's intention that a company's dividend policy should be prescriptive over the price control period so we will not require licensees to provide a dividend forecast but rather that they provide transparency of how their approach to dividends relates to the overall performance of their regulated businesses.

9.4 Therefore, by transparency we mean and expect greater understanding of executive pay/remuneration and dividend policy for stakeholders and how these relate to the performance of licensee's regulated business.

Our Decision

Purpose	To provide an understanding of executive pay/remuneration and how this reflects the performance of the regulated business, and of the regulated business' approach to dividends.
Decision	Licensees will be required to report annually on executive remuneration and executive roles in relation to the regulated

[106] Direction to introduce Regulatory Financial Performance Reporting (RFPR), April 2019

	business, and how executive pay reflects the company's performance and adds value for consumers. Licensees will be required to report annually and explain their approaches to dividends over the RIIO-2 price control period along with any factors that will influence their dividend policies.

Our Consultation Position

9.5 In the SSMC[107] we said that in our view, there is a need for licensees to report their executive pay/remuneration and dividend policies on an annual basis for the same reasons as set out in the GD&T Draft Determinations.[108]

9.6 We therefore proposed in the SSMC to require licensees to report annually on executive roles in relation to the regulated business, and how executive pay reflects the company performance and adds value for consumers. We said that this reporting should provide the same level of disclosure for executive remuneration for each executive director, as found in Statutory Accounts in line with the UK Corporate Governance Code, with regard to fixed and variable pay, and additional governance (e.g. share ownership). We also said that this should include a narrative explaining the allocation of executive remuneration to the regulated business and how the variable pay relates to performance outcomes and benefits consumers.

9.7 As regards dividends, we said that as natural monopolies and regulated companies, we also consider it appropriate for licensees to explain on their approaches to dividends over the RIIO-2 price control period along with any factors that will influence these policies and we proposed to require licensees to report on these. In our view, this will provide evidence that their approaches to dividends are in consumers' interests and will help to support the legitimacy of the licensee's regulatory performance and efficiency over the price control period.

Responses to our Consultation

9.8 Most network companies do not agree that additional reporting on executive pay/remuneration and dividend policies will help to improve the legitimacy and transparency of company's performance under the price control. In contrast, Citizens Advice, Sustainability First and the RIIO-2 Challenge Group support our

[107] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance , July 2020, page 31, para 9.6 and 9.9
[108] RIIO-2 Draft Determinations – Finance Annex, July 2020, page 167, para 11.77-11.80 and 11.84-11.87. Also see our RIIO-2 Final Determinations - Core Document, December 2020

proposed measures. UKPN was also supportive on the basis that further guidance is provided.

9.9 ENWL stated that current reporting requirements are sufficient and executive pay disclosures can create a barrier to promotion and recruitment/retention of talent in the industry. Also, it disagrees with a requirement to disclose dividends policies and does not see the purpose of doing so when there is already an incentive/penalty regime and gearing limitation in place that affects the expected rate of return and dividends.

9.10 SSEPD, NPg, WPD and SPEN also disagree with additional reporting requirements for executive remuneration. In their view, this information is already included in their statutory financial statements prepared under the statutory accounting framework subject to an external audit. They also disagree with additional reporting requirements on their dividend policies.

9.11 SSEPD, NPg and WPD stated that Parliament, the Financial Conduct Authority and relevant exchange (where their securities are listed), are the appropriate authorities to set rules for good corporate governance and disclosures of directors' remuneration.

9.12 NPg also stated that if Ofgem wants to pursue this further, it could consider gathering information at an aggregate level with a high-level explanation involving cross-referencing to the company's accounts.

9.13 In SPEN's view, different formats and unaudited additional information may lead to confusion and misinterpretation.

9.14 Citizens Advice welcomed greater openness and accountability to Ofgem from licensees, linking these annual disclosures to the performance of the regulated businesses. They stated that it is important that companies incentivise their staff's performance appropriately.

Reasons for our Decision

9.15 We have considered stakeholders' views that additional reporting is not required, however, we remain of the view that this reporting is necessary for the reasons set out in the SSMC.[109] As such, DNOs will be required to report annually on

[109] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance, July 2020, para 9.7 and 9.10

executive remuneration and executive roles in relation to the regulated business, and how executive pay reflects the company's performance and adds value for consumers. We will also require companies to report annually on their approaches to dividends and any factors that will influence their dividend policies.

9.16 In our view, this reporting will help build customers' and other stakeholders' trust and confidence that the regulatory regime is protecting consumers' interests.

9.17 Guidance on this additional reporting will be set out as part of PCFM Guidance.

10. Return Adjustment Mechanisms (RAMs)

Introduction

10.1 In the RIIO-2 Framework Decision in December 2019, we confirmed that we would apply the sculpted sharing factor RAM as we had proposed in our Open Letter.[110]

Our Decision

Purpose	The purpose of RAMs is to provide protection to consumers and investors in the event that network company returns are significantly higher or lower than anticipated at the time of setting the price control. Consumers and investors will benefit from the introduction of RAMs as they would be protected against the possibility of unreasonably high or low returns in the ED2 price control. RAMs will help to ensure the fairness of ED2 by protecting consumers and investors against ex post overall returns from network price controls deviating greatly from ex ante expectations.
Decision	The RAM mechanism will take into account combined performance under the TIM and ODIs. Adjustments under RAMs will be implemented as part of the close-out of ED2. Parameters for the RAMs mechanism will be consulted on at the Draft Determinations stage.

Our Consultation Position

10.2 In the SSMC we proposed that an adjustment rate of 50 per cent would be applied to RoRE returns that exceed a level of 3.0 per cent (300 basis points) either side of the baseline allowed return on equity (i.e. applying to both under and outperformance). We proposed that the mechanism would take into account combined performance under the TIM and ODIs and that any adjustments under RAMs would be implemented via ED2 closeout.[111]

[110] RIIO-ED2 Framework Decision, December 2019, page 45, para 2.136
[111] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance, July 2020, page 33, para 10.2

Responses to our Consultation

10.3 We received 10 responses to our consultation on RAMs, which were from network companies, a consumer body, a supplier and the RIIO-2 Challenge Group.

RAMs design

10.4 Of the 10 responses four were supportive of the proposed RAMs design and five were not. One response (RIIO-2 Challenge Group) suggested that a symmetrical RAM should result in a decrease in the equity allowance for licensees.

10.5 4 DNOs and the ENA commented that a RAMs mechanism should not be needed in a well-calibrated price control. Centrica and the RIIO-2 Challenge Group supported the proposal for symmetrical RAMs.

Threshold level

10.6 Fewer responses addressed the proposed threshold for the RAMs.

10.7 Centrica considered that the proposed threshold was too high. NPg and UKPN agreed with the proposal for a single threshold. But while NPg considered a 300bps threshold acceptable, UKPN suggested that this level of performance would be achievable for reasons other than errors in the setting of the price control. Three network companies suggested it was too early in the process to determine a threshold.

10.8 ENWL proposed a two-threshold RAMs design: a first threshold would be set at 300 bps, above which DNOs should be required to demonstrate that customers are receiving the anticipated associated with the incentives driving the level of return as well as contributing 10% of returns beyond this level to support vulnerable consumers. A secondary threshold would be set at 500 bps and follow the approach set out in the SSMC.

Other comments

10.9 Citizens Advice said that financing costs should be included within the RAMs mechanism as they could be a source of significant outperformance. One DNO said that excluding financing and tax performance would provide an incomplete view of equity returns.

10.10 UKPN said that support for RAMs would be predicated on a number of other parameters to the price control being calibrated appropriately (including the "outperformance wedge", cost assessment and incentive targets). NPg suggested that, having implemented RAMs, Ofgem should be willing to set strong incentives across the rest of the price control settlement. UKPN also said that it disagreed with the application of any RAMs adjustment as part of the RIIO-ED2 closeout process. It suggested that an annual true-up could be built into the PCFM.

10.11 WPD commented that it would like to see Ofgem's assessment of the long-term effect of RAMs on incentive dampening as part of the Impact Assessment.

10.12 Two stakeholders, the RIIO-2 Challenge Group and Citizens Advice, said that there should be a reduction in the equity allowance to account for the effect of RAMs in reducing risks faced by the DNOs.

Reasons for our Decision

10.13 We are not making a decision on the adjustment rate or on threshold level at this stage.

10.14 We proposed in the SSMC that an adjustment rate of 50% should be applied to RoRE returns that exceed a level of 3.0 per cent (300 basis points) either side of the baseline allowed return on equity. We note that several respondents indicated that it is too early in the process of setting the price control in order to make this decision. We agree that it would be preferable to set these parameters once we have a more complete picture of the overall price control package (including relating to TIM efficiency incentive rates and the level of reward and penalty available under ODIs) and in light of having reviewed DNOs' business plans. We will therefore consult on proposals for these parameters as part of our Draft Determinations.

10.15 Further, we have not reached a decision on whether there should be a single or multiple threshold levels and adjustment rates. This is another matter that will form part of our consultation at the Draft Determinations. We note that in the RIIO-T2 and RIIO-GD2 price controls, we have decided to implement two threshold levels and adjustment rates within the RAMs framework.

10.16 We have decided that the mechanism should be symmetrical, providing for adjustments both due under- and outperformance. We continue to believe that this represents a fair balancing of the interests of consumers and investors.

10.17 Our measure of company returns under RAMs will be the performance of each company, measured using a combination of the RoRE metric, under the totex incentive mechanism and financial ODIs. This will allow any trade-offs between TIM and ODI performance to be accounted for within the mechanism.

10.18 We have decided that financial and tax performance will not be considered as part of RAMs. Our reasoning for this decision remains as set out in respect of the proposal in the SSMC.[112]

10.19 RAMs are intended to serve as a failsafe mechanism when returns are significantly outside ex ante expectations. A material potential cause of unexpectedly high returns is information asymmetry between Ofgem and the network companies when setting totex levels and incentives. In contrast we rely on external, outturn indices for setting the cost of debt (and have expanded our requirements for reporting embedded debts). As such we do not see the same asymmetry around financial performance and therefore consider it more appropriate to use a pre-financing measure of profitability for our RAM calibration.

10.20 Financial out/under performance is largely known ex ante (due to the companies' embedded debt costs). If we were to set RAM boundaries on post-financing profits, companies' ability to perform against operational targets (our main area for concern), could vary widely.[113]

10.21 Any adjustments under RAMs will be made following the closeout of the RIIO-ED2 price controls and reflected in company revenues in RIIO-ED3. We believe this to be the simplest approach and which correctly measures the performance over RIIO-2.

[112] RIIO-ED2 Sector Specific Methodology Consultation: Annex 3 - Finance, July 2020, page 39, para 10.9
[113] ibid, page 39, para 10.9

Appendices

Appendix 1 – Financial working assumptions for business plan purposes

An update on our working assumptions for the allowed return on capital

A1.1 We summarise in Table 3 below the working assumptions for the cost of capital in CPIH terms for the purposes of preparing business plans. These working assumptions reflect the decisions made within this document regarding methodologies, current assumptions and updates to market and other data. We expect to refine these working assumptions following business plan submissions.

Table 3: Working assumptions for the RIIO-ED2 allowed return in CPIH terms

		Year-end 31st March					Average		
Price base	**Component**	**2024**	**2025**	**2026**	**2027**	**2028**	**'24-'28**	**Ref**	**Source**
CPIH	Allowed return on debt	2.424%	2.277%	2.108%	1.910%	1.715%	2.087%	A	para 2.45
	Cost of equity	4.612%	4.634%	4.651%	4.669%	4.686%	4.650%	B	Table 1
	Expected outperformance	0.250%	0.250%	0.250%	0.250%	0.250%	0.250%	C	Table 1
	Allowed return on equity	4.362%	4.384%	4.401%	4.419%	4.436%	4.400%	D	Table 1
	Notional gearing	60%					60%	E	para 8.30
	Allowed return on capital	3.199%	3.120%	3.025%	2.913%	2.803%	3.012%	F	F = A*E + D*(1-E)

A1.2 These values are provided for the purpose of business plans only. The cost of capital values will be updated at the Draft Determinations stage.

An update on other main financial working assumptions

Table 4: Other financial working assumptions

Parameter	Working Assumption Level	Source
Notional company proportion of inflation linked debt	25%	RIIO-1 modelled assumption[114]
Notional company assumed equity issuance cost (as a percentage of modelled equity issued)	5%	Paragraph 8.48
Notional company assumed dividend (as a percentage of equity RAV)	3%	Paragraph 8.49

A1.3 These values are provided for the purpose of business plans only. These values will be updated at the Draft Determinations stage.

[114] RIIO-ED1 Financial Model following the Annual Iteration Process 2020, November 2020

Appendix 2 - Inflation Expectations

A2.1 We present below the latest available information from the Office for Budget Responsibility (OBR). Inflation forecasts are an important part of our working assumptions for RIIO-ED2.

Table 5: Inflation expectations, OBR's November 2020 forecast[115]

YE 31st December	2021	2022	2023	2024	2025
CPI	1.17%	1.55%	1.73%	1.91%	2.00%
RPI	1.37%	1.55%	2.57%	2.99%	2.99%

A2.2 We continue to focus on the longest horizon available for the purposes of estimating working assumptions for RIIO-ED2. We also continue to assume that the best proxy for CPIH is CPI. On this basis, we derive a difference between RPI and CPIH (the RPI-CPIH wedge) of 0.976%[116] based on the OBR forecasts for the year 2025.

A2.3 Therefore, in this Finance Annex we refer to a CPIH expectation of 2.00%, an RPI expectation of 2.99%, and an RPI-CPIH wedge of 0.976%.

[115] See CPI and RPI worksheets here: https://obr.uk/download/historical-official-forecasts-database/
[116] Derived using the Fisher equation: (1+2.993%) / (1+2.000%)-1. We display three decimal places solely to allow stakeholders to derive the subsequent tables.

Appendix 3 - Consultancy Reports

Report	Author	Prepared for/ Funded by	Report Reference	Date	Reference in GD&T2 Consultations
1	Frontier Economics	ENWL	Transaction Cost Premium for Infrequent Debt Issuers	Sept 2020	See Chapter 2 of this finance annex
2	Earwaker and Fincham	National Grid	Information asymmetry and the calibration of price controls	Aug 2020	See FD Finance Annex: page 163[117]
3	First Economics	National Grid	Allowed and Expected Return	Jan 2019	See SSMD Finance Annex: page 142[118]
5	Frontier Economics	ENA	Further analysis of Ofgem's proposal to adjust baseline allowed returns.	Sept 2020	See FD Finance Annex: page 153[119]
7	NERA	ENA	Halo effect and additional costs of borrowing at RIIO-2	Sept 2019	See DD Finance Annex: page 179[120]
8	NERA	ENA	Review of Ofgem's DD Additional costs of borrowing, and deflating nominal iBoxx	Sept 2020	See FD Finance Annex: page 173[121]
9	NERA	SPT	Cost of Capital for SPT in RIIO-T2	Nov 2019	See DD Finance Annex: page 195[122]
10	NERA	GDNs	Cost of Debt at RIIO-2: A report for Gas distribution Networks	Sept 2019	See DD Finance Annex: page 188[123]
11	Oxera	ENA	Are sovereign yields the risk-free rate for the CAPM?	May 2020	See FD Finance Annex: page 150[124]
12	Oxera	ENA	The cost of equity for RIIO-2 Q4 2019 update	Nov 2019	See DD Finance Annex: page 197[125]

[117] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2, Consultancy Report 14, page 163
[118] RIIO-2 Sector Specific Methodology Decision – Finance, May 2019. Appendix 2, Consultancy Report 16, page 142
[119] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2, Consultancy Report 9, page 153
[120] RIIO-2 Draft Determinations – Finance Annex, July 2020. Appendix 2, Consultancy Report 1, page 149
[121] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2, Consultancy Report 18, page 173
[122] RIIO-2 Draft Determinations – Finance Annex, July 2020. Appendix 3, Consultancy Report 5, page 195
[123] RIIO-2 Draft Determinations – Finance Annex, July 2020. Appendix 2, Consultancy Report 5, page 188
[124] RIIO-2 Final Determinations - Finance Annex (REVISED) , February 2021. Appendix 2, Consultancy Report 6, page 150
[125] RIIO-2 Draft Determinations – Finance Annex, July 2020. Appendix 3, Consultancy Report 5, page 195

13	Oxera	ENA	Risk premium on assets relative to Debt	March 2019	See SSMD - Finance: page 124[126]
14	Oxera	ENA	Estimating debt beta for regulated entities	June 2020	See FD Finance Annex: page 149[127]
15	Oxera	HAL	Estimating RPI adjusted equity market returns	Aug 2019	See FD Finance Annex: page 152[128]
16	Oxera	ENA	Asset risk premium relative to debt risk premium	Sept 2020	See FD Finance Annex: page 143[129]
17	Oxera	ENA	The Cost of Equity for RIIO-2 Q3 2020 Update	Sept 2020	See FD Finance Annex: page 144[130]
18	Frontier Economics	ENA	Adjusting Baseline Returns for Anticipated Outperformance	March 2019	See SSMD Finance Annex: page 138[131]
19	Oxera	ENA	What explains the equity market valuations of listed water companies? – A review of Ofwat's use of financial market evidence to support its allowed cost of capital	May 2020	See FD Finance Annex: Page 147[132]

[126] RIIO-2 Sector Specific Methodology Decision – Finance, May 2019. Appendix 2, Consultancy Report 3, page 124
[127] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2, Consultancy Report 5, page 149
[128] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2, Consultancy Report 7, page 152
[129] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2, Consultancy Report 1, page 143
[130] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2, Consultancy Report 2, page 144
[131] RIIO-2 Sector Specific Methodology Decision – Finance, May 2019. Appendix 2, Consultancy Report 14, page 138
[132] RIIO-2 Final Determinations - Finance Annex (REVISED), February 2021. Appendix 2 Consultancy Report 4 page 147