SSEN Distribution Response to ED2 Draft Determination Finance Annex A

Scottish & Southern Electricity Networks

Powering our community

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Contents

1. Introduction

Ofgem's claim that the RIIO-ED2 financial package seeks to align the interest of companies and investors to those of consumers by setting the appropriate balance of risk and return is not substantiated by the Draft Determinations (DD). On the contrary, our assessment of the DDs is that they are not financeable, will lead to significant financeability pressures and put investment at risk to the detriment of consumers. Ofgem has made a series of material errors in setting the financial parameters which is further compounded by the asymmetric nature of Output Delivery Incentives (ODIs), errors in setting totex allowances, and the disallowance of Uncertainty Mechanisms.

Our response addresses each of the financial proposals set out in the DDs for RIIO-ED2. We have also answered the questions posed by Ofgem in its DD consultation separately. SSEN-D's main response to the financial parameters is set out in this Finance Annex to our overall DD response with the answers to Ofgem's detailed questions either referring to this appendix or providing supplementary answers where relevant. We have summarised the errors and issues alongside potential remedies for financial parameters in Table 1 below. This section must be read in conjunction with our question responses and the evidence we have provided including reports provided by economic advisors through the ENA Finance Working Group (FWG) or undertaken specifically for SSEN-D.

Table 1 – Summary of Finance Errors, Issues and Proposed Remedies for DDs

Area	Errors / Issues	Proposed Remedy
Cost of Equity (section 2)	Ofgem has erroneously set the Cost of Equity (CoE) too low including: • Not adequately updating (from RIIO-T2/GD2) to reflect sector specific risks and "new evidence", for example availability of a new inflation series. • There continues to be fundamental errors over Ofgem's approach to determining the inputs to the CoE including the risk-free rate, beta and total market return. • Taken together with the significant downside asymmetry of the overall package the proposed 4.75% is insufficient to achieve the target credit rating. • Credit ratings fall below the target rating of Baa1 on Ofgem's own analysis. When considering the errors in defining the notional company, setting totex allowances, setting UMs, and the asymmetry in ODIs, the credit	CoE allowance needs to be increased to account for the various material errors Ofgem has made in its calculations as well as reflecting the sector specific risks and accounting for the new evidence. Our evidence shows that on observable and reliable market evidence, the CoE must be increased significantly. Ofgem's error in setting a CoE which is materially too low is evidenced furthermore when undertaking financeability analysis. When correcting for these errors, the CoE should be set at least 5.9% CPI-real for RIIO-ED2. Given the asymmetric ODIs, Ofgem must aim up on the CoE to reflect the risk of the price control. This is consistent with regulatory precedent where the

	rating falls one to three notches below Baa1. • Equity holders are required to subsidise debt holders over the period with negative dividend yields (net equity injection). This risks investment in the period to the detriment of consumers.	CMA aimed up in PR19 by 0.25% on the CoE[1]. In the absence of correcting errors when totex allowances or funding for UMs, the CoE at 5.9% is still too low even after aiming up.
Cost of Debt (section 3)	Ofgem has incorrectly undertaken its analysis when calibrating the Cost of Debt (CoD) allowance for RIIO-ED2. This will lead to under-recovery of sector debt costs for the notional company. Our analysis shows that companies only just recover their debt costs if interest rates were to fall below current interest rate forecasts. On current interest rate forecasts or any slight increase in interest rates leads to significant under-funding of the notional companies cost of debt. This generates financeability pressures during a period over and above those caused by the CoE being set too low. Additionally, Ofgem has proposed an additional 0.25% to account for additional borrowing costs. Based on current and forecast market conditions this does not fully reflect the additional costs of borrowing i.e. transaction costs, liquidity costs, costs of carry and CPIH basis risk. Ofgem have also failed to provide any allowance for the infrequent issuer premium on an inconsistent	CoD allowance needs to be increased to reflect current economic reality of interest rate forecasts and provide adequate headroom over the period. Ofgem appeared to provide more headroom in RIIO-T2 and GD2 but has not set out why it has not adhered to similar principles for RIIO-ED2. Ofgem must set CoD allowances to ensure companies are funded for efficient debt financing in credible interest rate outlooks. This amounts to at least 30-40 bps over the period on the basis of a 1% increase in interest rate forecasts.

[1] The decision by the CMA to aim up on the CoE was based on the asymmetric nature of the price control and on financeability grounds.

	basis over RIIO-2 with without justifying its decision[2].	
Financeability Analysis (section 4)	On Ofgem's own financeability analysis, the notional company is not financeable at the target investment grade of Baa1 over the period. Ofgem has relied upon an incorrect definition of the notional company to 'mask' a financeability issue within RIIO-ED2. To 'solve' credit ratings issues with its DDs, Ofgem has also relied on significant equity injections over the period thereby relying on equity holders to subsidise debt holders. In fact, there are negative dividend yields in RIIO-ED2 rather than the 3% proposed by Ofgem. Ofgem has incorrectly assumed Linked Debt (ILD) accounts for 25% of debt structures in ED2 when in fact it is closer to 10%. When correcting for these errors, the CoE has to be increased to at least 5.9% to achieve the target credit rating albeit this still does not support dividend yields of 3%. When analysing the price control "in the round" including overly aggressive totex cuts and associated errors, disallowed UMs and asymmetric ODIs, credit ratings fall below investment grade	Ofgem must correct for the material errors identified in its financeability analysis. When corrected, the evidence shows that to achieve the target credit rating of Baa1, the CoE must be increased to at least 5.9% CPI-real. This is assuming that the CoD allowance is corrected to ensure debt costs are fully funded, totex cost allowances are set accordingly, and UMs are fully funded. If these errors are not corrected, the CoE must be increase furthermore[4]. Separately, due to the asymmetry in ODIs, Ofgem must aim up on the CoE over and above the 5.9% minimum required. This is consistent with regulatory precedents where the CMA aimed up by 0.25% as noted above.

[2] Ofgem decided to provide an infrequent issuer premium of 6bps in RIIO-GD2 on the basis of a set threshold and RAV size. In RIIO-ED2, they appear to have relied on neither in RIIO-ED2. On the basis of their own criteria, SSEH at least would qualify for the infrequent issuer premium.

[4] Note we are not advocating for increasing the CoE to compensate for errors on setting totex allowances or due to unfunded UMs. We are illustrating that in the absence of these corrections, there is a material financeability concern which could only be solved by an uplift in the CoE.

	credit rating[3]. Overall, Ofgem has made a series of errors across the price control leading to serious financeability issues in RIIO-ED2 on both a debt and equity basis.	
Inflation (section 5)	Ofgem's indication that it is considering a change to the well-established and long running treatment of inflation linked returns within regulated networks is inappropriate at this late stage of the price control. Inflation is stitched into the fabric of the price control. It integrates with various critical components of the price control including the setting of allowed returns, setting cost allowances, the calibration of the balance of risk, and financeability. Inflation is not a trivial or simple item within the price control that can be modified absent the necessary process, evidence, or justification. Ofgem's DDs is a simple presentation of very high level questions skewed towards incorrect preconceptions and interpretations of how inflation works within the price control. It fails to present accurately or fully the scale and complexity of inflation or allow sufficient time, analysis, and long-term process such a material item necessitates for stakeholders to engage comprehensively and transparently.	Ofgem would be deviating from its own regulatory policy and long running commitment of inflation linked returns. Any attempt to alter that commitment will undermine investor confidence and give rise to higher risks. This in turns requires a significantly higher cost of capital to cover for such risks which Ofgem has failed to consider at all or indeed quantify. This is to the detriment of consumers who benefit from lower allowed returns than would otherwise be the case if returns are not inflation linked. It would be irrational for Ofgem to change the treatment of inflation in RIIO-2. This includes consideration for RIIO-T2 and GD2 as it constitutes a reopening of those settled price controls. This will undermine regulatory stability and investor confidence in the sector.

[3] This is below the Baa3 as a result of overspending to deliver outputs, fund uncertain expenditure, and -1% performance on ODIs.

	Any decision to change inflation treatment is a material divergence from Ofgem decisions in the RIIO Framework Decision[5], and the Sector Specific Methodology Decision[6] (SSMD). Raising potential inflation changes at such a late stage of a price control is a material change, introduces significant regulatory and business risks, and will put investment and financeability at risk. Inflation protections are important to investors and has been a long-standing commitment not just within RIIO but in other regulatory sectors in the UK and abroad. This benefits long term investment and stability as well as the interests of existing and future consumers, which Ofgem has failed to consider by partially reconsidering inflation at this late stage. As a result, Ofgem risks significantly undermining investor confidence thereby putting investment and financeability at risk to the detriment of existing and future consumers.	
Other Issues	We have also identified a number of material errors and issues with Ofgem's DD including inaccurate Capitalisation Rates for Uncertainty Mechanisms (UMs). We set out the detail of these errors in this document and indicate where changes are reasonably required to address the evidence and	Capitalisation rates in UMs have been set too high without adequate consideration of the natural rate of expenditure. In RIIO-T2 for example, Ofgem used scenarios for UM expenditure to understand UM capitalisation rates while acknowledging the expenditure split between

[5] RIIO-2 Framework Decision (July 2018), Page 58, https://www.ofgem.gov.uk/sites/default/files/docs/2018/07/riio-2_july_decision_document_final_300718.pdf
[6] RIIO-ED2 SSMD for ED2 (March 2021), Finance Annex

	justification including regulatory precedents.	capital and operating costs was completely uncertain. Ofgem elected to set the capitalisation rates lower than the natural rate to support cash flows and investment for UMs[7]. On the same basis, and using the scenario analysis of potential uncertain expenditure, the capitalisation rate is between 75-85%. Ofgem should set this at the lower end of the range consistent with RIIO-T2 to avoid over capitalisation over the period.

Each section is structured as follows:

- Cost of Equity (CoE) – In this section we set out why Ofgem's analysis leading to the proposed CoE in the DD is wrong, with substantial supporting evidence. We set out how Ofgem has made a series of material errors and has failed to take account of important market evidence while also highlighting material concerns with their financeability assessment.
- Cost of Debt (CoD) – we explain our assessment of the CoD proposals in the DD including providing detailed analysis and evidence in response to the material errors Ofgem has made in reaching its DD on the CoD mechanism for RIIO-ED2.
- Financeability analysis –our analysis of Ofgem's financeability assessment demonstrates that Ofgem has used a series of material measurement errors to 'mask' credit rating and financeability issues their DDs cause in RIIO-ED2. This includes setting the cost of capital too low and incorrectly defining the notional company structure. We also show that under a plausible range of downside scenarios caused by DDs, financeability will worsen further thereby putting financial stability and investment at risk over RIIO-ED2, contrary to Ofgem's statutory duty.
- Inflation – in this section we set out why Ofgem should not be breaking its long-standing policy commitment on inflation. Ofgem has presented no evidence or analysis as to why or how inflation treatment should change within RIIO-2 or future price controls. Ofgem has erroneously failed to follow due process or assess the impact of such a material change on almost every element of the price control .

[7] Ofgem state they set a lower capitalisation rate in RIIO-T2 as part of "avoiding over capitalisation, as this could result in less fast money than might be reasonable, which could hamper company investment and consumer interests." Para 11.8, RIIO-T2 Finance Annex. Ofgem also state that "The precise capex/opex mix for uncertainty mechanism totex is uncertain ex ante and overcapitalisation could put pressure on some credit metrics. We therefore consider it appropriate to set the capitalisation rate for uncertainty mechanisms at the lower end of the range of possible capex/opex assessments under different scenarios." Para 5.32, RIIO-T2 Finance Annex.

We have also covered the other finance errors in the Draft Determinations including Capitalisation Rates, RIIO-ED2 Close out and the Annual Iteration Process (AIP), Tax and Return Adjustments Mechanisms (RAMs), as well as poorly justified policy regarding corporate governance and associated disclosures over and above statutory requirements.

2. Cost of Equity

In this section we summarise our evidence and response to Ofgem's DD proposed Cost of Equity (CoE) range. This is based on the evidence and analysis undertaken by Oxera which is included in its report on behalf of the ENA.[8] The CoE allowance for RIIO-ED2 has been set too low and is not reflective of current market evidence including the enhanced risk the Distribution Network Operators (DNOs) exhibit. The new evidence presented below demonstrates that Ofgem's material errors in setting the CoE must be corrected in Final Determinations. The key areas of error in the CoE we focus on are:

- **Risk Free Rate (RFR)** being incorrectly calculated using sole weight on spot yields on government bonds as well as understating the RPI-CPIH wedge.
- **Total Market Return (TMR)** being erroneously set by deflating nominal market returns by using a flawed proxy for historical CPI inflation. The ONS has published a revised backcast series which evidences Ofgem has made an error in setting the TMR. This is supported by previous evidence compiled by Oxera during RIIO-2 as well as recent assessment of the ONS backcast[9] which Ofgem should have taken account of in setting the CoE.
- **Asset Beta** being inaccurately set using an incorrect dataset whereby Ofgem have included UK Water[10] companies but excluded European Energy Networks. This includes extensive analysis of price controls across the UK Water and European Energy Networks alongside market data.
- **Cross-checks** that Ofgem relies upon to set the CoE are unobservable or lack the required reliability. Ofgem should be relying upon superior cross checks that are observable and statistically robust. When considering these cross-checks, it is clear Ofgem's CoE has been set too low in error.

2.1 Cost of Equity Parameters

Through our evaluation of the CoE, we consider each of the parameters within the CAPM and highlight the errors Ofgem has made when determining the CoE allowance. The errors made across each parameter are summarised below.

2.1.1 Risk Free Rate (RFR)

As described in Oxera's report, Ofgem has failed to take account of evidence presented at the CMA that 20 year Index-linked gilts (ILGs) are an inaccurate assumption to use for RFR. In doing so Ofgem has failed to consider significant academic evidence that provides important guidance when estimating the RFR. This includes the evidence that even investors with elite credit ratings still face higher borrowing costs than government and this must be accounted for in the CAPM calculations. The key errors detailed further in Oxera CoE report[11] are:

1. Failure to adjust ILGs to account for convenience premium

Supported by both academic and empirical data that highlights when using the capital asset pricing model in cost of capital analysis that it should aim higher than the Treasury rate when setting the

[8] Oxera, Cost of equity in RIIO-ED2 Draft Determinations, (Aug 2022)

[9] Oxera, Assessing the new ONS CPIH back-cast, (Aug 2022)

[10] Ofwat have continued to not include UK Energy Networks in its dataset for setting beta for UK Water companies: "In order to ensure our beta estimates capture systematic risk exposure for the water sector only, for PR24 we propose to not include these energy comparators [NG and SSE] as datapoints for estimating the notional water company beta." Page 15, Ofwat WACC Consultation Annex

[11] Oxera, Cost of equity in RIIO-ED2 Draft Determinations, (August 2022) - ENA

RFR and indicates an upward adjustment in the range of 50-100bps is required to account for the convenience premium as previously recommended by Oxera[12].

This further is supported by regulatory precedents detailed by Oxera where upward adjustments were made to the RFR in PR19, ARERA (the Italian regulatory authority) and BNetzA (the German regulatory authority).

Ofgem has failed to take account of this evidence and continues to use a rate that does not adjust for the convenience premium resulting in an erroneously low RFR which must be corrected at final determinations.

2. Reliance on unreliable cross checks, Long-Term SONIA rates

The two material errors with cross checks used are the data quality and the distorting effects of swap-specific factors. These two errors demonstrate that a more appropriate cross check is clearly required when concluding the RFR.

The data quality is unreliable as supported by the Bank of England who only publish curves up to five years in the future due to the reliability deteriorating after this period. Also, the duration of the 20-year SONIA swap data does not match that of the 20 year ILG and so is not a suitable cross check for the long term RFR included in the analysis for RIIO-ED2.

The second error is that, as supported by a wealth of academic evidence, there are distorting effects of swap-specific factors, and these are more heavily magnified on long maturity swaps which will significantly impact the analysis carried out for RIIO-2.

3. Understated the RPI-CPIH wedge

Ofgem defines two methodologies within the RIIO-ED2 DD for assessing the RPI-CPIH wedge and has concluded its analysis on the first of these. The two methodologies for the wedge are calculated based on:

a) a single year or

b) 20 years of inflation forecasts

Our analysis detailed further in Oxera's report highlights that under both methodologies Ofgem has understated the RPI – CPIH wedge by 30bps which is further supported by the OBR long term forecast. This understatement is a material error which must addressed in the RPI-CPIH wedge at ED2 Final Determinations.

2.1.2 Total Market Return (TMR)

Ofgem's ED2 DD maintains the TMR range stated in the SSMD and the RIIO-GD/T2 price control. However, our assessment of the proposed TMR range supported by Oxera[13] highlights two key errors in Ofgem's analysis

[12] Oxera, Review of the CMA PR19 provisional finding (2020) and Oxera, Are sovereign yields the risk-free rate for the CAPM? (2020)

[13] Oxera, Cost of equity in RIIO-ED2 Draft Determinations, (August 2022)

1. Reliance on incorrect inflation data

Ofgem has failed to update its methodology for the latest data set published by the ONS for the CPIH back cast. Oxera[14] examined the new evidence published by the ONS has addressed several of the concerns previously highlighted at the CMA and also highlights that the CPIH-real equity return is circa 25bps higher when using the latest evidence. To correct this material error, Ofgem should include the latest available data published by the ONS within its Final determinations and therefore increase the TMR range.

2. Applying the incorrect averaging methodology

Ofgem's proposed methodology is not supported by empirical evidence and does not correctly account for the regulatory framework of setting allowed returns. Ofgem rely on flawed evidence that there is serial correlation in returns and that the use of arithmetic averaging is not appropriate. This is incorrect and Oxera have consistently shown this to be statistically incorrect.[15]

2.1.3 Asset Beta

The Asset Beta estimate set out in the ED2 DD by Ofgem has been maintained in line with RIIO-GD/T2. Further analysis has been carried out by Oxera[16] since the RIIO-GD/T2 determinations which clearly evidences that Ofgem has made material errors in its sample of comparators. These errors include:

1. Ofgem's weighting on the water companies is not robust

Including such a weighting on water companies results in a downward implication on the asset beta estimate. It is inaccurate to include such a weighting due to the difference in risk between the sectors which is highlighted by the fact there is more regulatory discretion in the UK energy networks through the appellate regime compared to the redeterminations in the water sector. Imrecon[17] in conjunction with Seth Armitage, reviewed the risk of regulated network in the context of the appeal regimes. They set out that there is a "structural difference" between Regulated Energy Networks and Regulated Water Networks. They conclude with analysis that due to these differences in regulated frameworks and regimes, there exists a systematic risk differential. They conclude that this is much higher in Energy Networks than Water Networks on that basis which must be reflected in the Cost of Equity and calibration of price controls.

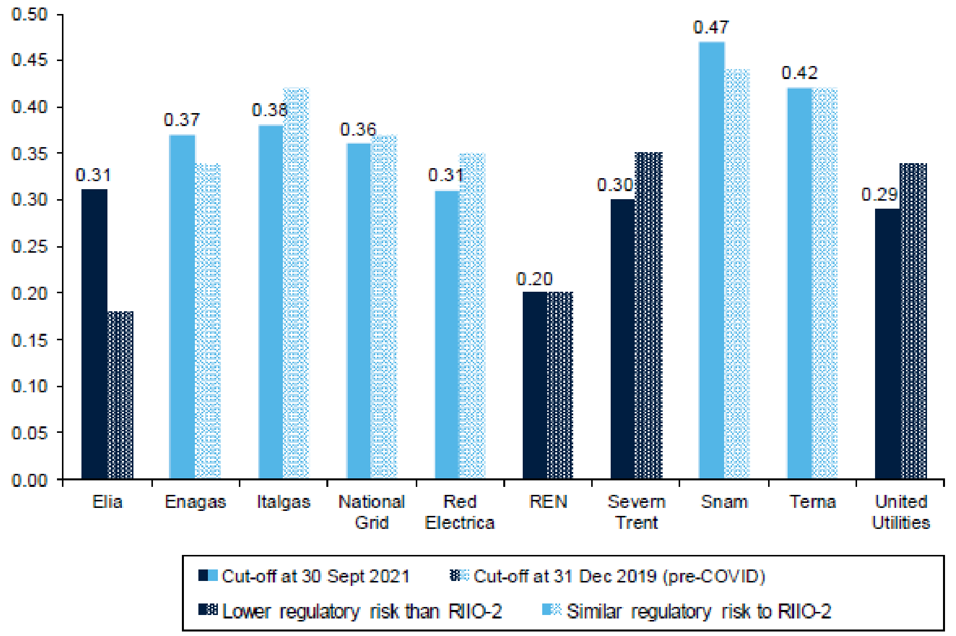
Oxera[18] undertook an extensive review of relative risk of UK Water, National Grid and European Energy Networks including a review of their respective regulatory regimes. Oxera conclude that the relative risk of Water is much lower than UK or European Energy Networks[19].

[14] Oxera, Assessing the new ONS CPIH back-cast, (Aug 2022)
[15] ibid.
[16] ibid.
[17] Imrecon with Seth Armitage, "Reframing our understanding of risk in regulated energy networks" (Mar 2022)
[18] Oxera, Assessing the Risk of GB Energy Networks (Mar 2022)
[19] Oxera remove certain networks from their sample based on a set criteria for statistical reliability. They detail this methodology in their report.

Additionally, Ofwat has recently set out that it will continue to not include UK Energy Networks when setting the CoE on the basis they are not relevant[20].

2. Ofgem has not included appropriate comparators from the European Energy Networks
Oxera[21] have carried out a study of the risk exposure of UK energy network companies versus regulated European energy networks since the RIIO-GD/T2 which is summarised in their report. This assessment concluded that there were six networks which were sufficiently comparable to RIIO-2 and should be included within Ofgem's comparator sample for their Asset Beta. This is summarised by Figure 1 below.

Figure 1 – Five year market asset betas against comparative assessment of systematic risks associated with regulatory regimes



Note: UK company equity betas are estimated relative to the FTSE All-Share index, using daily data. European energy company equity betas are estimated relative to the EuroStoxx TMI index, using daily data. A debt beta of 0.05 is assumed.

Source: Oxera analysis.

2.1.4 Cross-checks

Substantial evidence was presented during the RIIO-GD/T2 determinations that analysed a range of cross checks and the weighting each should be given when assessing the CAPM approach. Since the RIIO-GD/T2 determinations new evidence has been assessed which further supports the analysis that Ofgem has made material errors in the application of cross checks. Ofgem incorrectly gives significant weight to cross checks with flaws and limitations in their evidence base and less weighting to more superior cross checks such as the asset risk-debt risk premium (ARP-DRP) framework. The

[20] Ofwat have continued to not include UK Energy Networks in its dataset for setting beta for UK Water companies: "In order to ensure our beta estimates capture systematic risk exposure for the water sector only, for PR24 we propose to not include these energy comparators [NG and SSE] as datapoints for estimating the notional water company beta." Page 15, Ofwat WACC Consultation Annex.

[21] Oxera, Assessing the Risk of GB Energy Networks (Mar 2022)

Oxera CoE report sets out in detail new evidence in relation to market-to-asset ratios[22] (MAR's) and ARP-DRP which includes:

1. Ofgem places extensive weight on the MARs cross checks

Oxera has provided new evidence that details the lack of assessment that has been given by Ofgem to the terminal value or exit multiple. The new evidence provided for this highlights why Ofgem has incorrectly put too much weight on MARs including outperformance assumptions and the variance between required and allowed return on equity. Oxera conclude that in a market environment, investors will have expectations on what they could sell an asset or share for in the future and that is unlikely to be 1x RAV. In essence, the fact a premium is paid today in a transaction facilitates the expectation that a premium will be paid in the future, and this is accentuated when including any form of real RAV growth. Therefore, transaction premiums cannot be used to make adjustments to allowed returns within a price control. Frontier Economics[23] also undertook a review cross checks and similar find that MARs are an unreliable dataset when setting the cost of equity.

2. The ARP-DRP differential has declined significantly since RIIO -ED1

The differential between the Asset Risk Premium (ARP) and Debt Risk Premium (DRP) was prepared and presented by Oxera over RIIO-2[24]. have updated their analysis on these calculations since the evidence presented at the RIIO-GD/T2 CMA appeal which supports the significant decline. This new evidence has not been taken account of by Ofgem and taken together with the material errors evidenced earlier in this section within other CoE parameters demonstrates conclusively that Ofgem must increase the CoE allowance to meet its statutory duty to ensure licence holders are able to finance the activities they are required to carry out. This analysis shows that difference between the ARP and DRP the CoE has declined to below the 25th percentile on a range of comparator market data.

2.2 Conclusion

The robust and detailed evidence provided above demonstrates that the Cost of Equity Allowance has been incorrectly concluded for RIIO-ED2 and must be increased in order to address these material errors. The effect of Ofgem's material errors on the Cost of Equity assessment are summarised in Oxera's report which shows the significant impact of the material errors Ofgem has made. CoE should be set to as a minimum to ensure licence holders are able to finance the activities they are required to carry out. This depends on the correction of other errors: it is more appropriate to correct errors at source rather than increase the CoE to compensate for broader price control errors.

These errors are summarised as follows:

1. **Ofgem has incorrectly estimated the RFR** through its inaccurate use of ILGs, understatement of the RPI-CPIH wedge and reliance on an inaccurate cross-checks. The RFR should be increased by to reflect the convenience yield as a minimum which accounts for an increase in the RFR.
2. **Ofgem has made material errors in its calculation of the TMR range** mainly due to the inclusion of outdated and incorrect inflation data for deflating nominal historical returns.

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[22] Oxera, Market to Asset Ratios as a cost of equity cross check, (Aug 2022)
[23] Frontier Economics, "RIIO-ED2 Cost of Equity Cross Checks", (Aug 2022)
[24] Oxera (2019), 'Risk premium on assets relative to debt', (Mar 2019)
Oxera (2020), 'Asset risk premium relative to debt risk premium', (Sept 2020)

Additionally, Ofgem has applied the incorrect averaging methodology instead of relying on the arithmetic average. Once these material errors are corrected the TMR increases by at least 0.25% or 0.50% based on correcting for both errors.

3. **Ofgem has not utilised the correct data set for when estimating beta** and should consider lowering the debt beta based on observable market evidence and increasing the asset beta. This includes removing UK Water companies from the dataset and including European Energy Networks[25].
4. **Ofgem should rely on more robust and superior cross checks when setting the Cost of Equity.** Ofgem have inappropriately relied on flawed and incomplete evidence on Market to Asset Ratios (MARs) and OFTO return data to justify their low CoE. Superior cross checks exist as set out the report by Oxera including the comparison of Asset Risk Premium to Debt Risk Premium or ARP vs DRP. Frontier Economics[26] also indicates that use of other cross checks that are more reliable and directly observable.
5. **Ofgem should aim up when setting the CoE as good regulatory practice and to ensure consumers are protected from under investment when delivering NetZero**. Substantial academic and empirical evidence support aiming in at least the 75th percentile if not significantly higher towards the 90th percentile. Ofgem has failed to consider the asymmetric nature of RIIO-ED2, the regulatory precedent on the CMA decision on PR19 or the best interests of consumers.

[25] Oxera note that specific European Energy Networks must pass various liquidity thresholds and other tests to ensure they can be relied upon statistically. They set this out in their report for SSEN on "Assessing the Risks of GB Energy Networks" (Mar 2022) and the updated addendum to that report "Traded Yield Spreads of Water and Energy Networks (Aug 2022).

[26] Frontier Economics, "RIIO-ED2 Cost of Equity Cross Checks", (Aug 2022)

3. Cost of Debt

We have set out our response to Ofgem's DD in relation to the Cost of Debt (CoD) in this section. This covers the consultation questions which have been completed in the appendix referencing this section accordingly. Oxera[27] have supported our analysis for the DD and we have referenced supporting evidence where appropriate. Within their analysis they have covered several areas including:

- **Evaluating the CoD Funding**
- **Additional Costs of Borrowing**
- **Infrequent Issuer Premium**
- **Index Linked Debt**

3.1 Evaluating Cost of Debt Funding

Ofgem sets out its analysis in the RIIO-ED2 Finance Annex that a 17 year trailing average of iBoxx GBP Utilities 10yr+ index yields (plus 25bps allowance for additional costs of borrowing) is the most suitable CoD allowance. Based on further review and market evidence with the support of Oxera we believe the risk of under recovery on this cost of debt allowance is high.

In our Business Plan, we recommended that Ofgem increase the CoD allowance to ensure underfunding is not a material risk. The analysis has been updated to include the most recent market data with a cut off of July 2022 with the results included in Table 2 (detail included in Oxera Financeability report)[28] clearly showing that the cost of debt allowance is set too low. Oxera's analysis highlights that a 17 year trailing average would result in an under recovery of approx -15bps on base case, with the risk increasing under interest scenarios to as much as -34bps. In RIIO-T2/GD2 Ofgem allowed for headroom within its cost of debt allowance of 26-29bps and so its approach of no headroom and creating a material risk of underfunding is inconsistent across RIIO-2. If for example Ofgem were to increase to a 22 year trailing average this would provide headroom around 30bps of additional funding but would still leave networks underfunded over RIIO-ED2. Therefore there is a need to further increase CoD allowance based on a recalibration or addition to the 17 year trailing average.

Table 2 - Comparison of the average allowed and notional cost of debt over ED2

	SSES			SSEH		
	Base case	High interest rate	Low interest rate	Base case	High interest rate	Low interest rate
Allowed cost of debt	2.28%	2.38%	2.18%	2.28%	2.38%	2.18%
Notional cost of debt	2.43%	2.69%	2.18%	2.43%	2.72%	2.13%
Out- (under-) performance	**-0.15%**	**-0.31%**	**0.00%**	**-0.15%**	**-0.34%**	**0.05%**

Source: Oxera analysis of Ofgem DD PCFM, included in Oxera, RIIO-ED2 Cost of Debt and Financeability

Based on current market conditions including inflation and interest rate volatility this increases the risk materially for the ED2 price control versus GD2/T2 and further supports why Ofgem should

[27] Oxera, RIIO-ED2 Cost of Debt and Financeability (August 2022)
[28] Ibid.

include headroom for cost of debt recovery in the ED2 cost of debt allowance to reduce the material risk of underfunding as it has in GD2/T2. **This amounts to at least 30-40bps in additional funding which is the equivalent of 22 years trailing average or an additional allowance added to the 17 year trailing average set by Ofgem in DDs.**

3.2 Additional Cost of Borrowing

Ofgem sets out in its draft determinations that the cost of debt allowance will include an additional 25bps for additional borrowing costs which again puts network operators at significant risk of under funding during ED2. In our business plan, we highlighted that the 25bps proposal by Ofgem was understated which was supported by Oxera's[29] analysis. Current market conditions and rising interest rates increase the risk of underfunding even further. Ofgem has failed to update the additional costs of borrowing for changes in market conditions between SSMD and DD, which is a material error.

3.3 Infrequent Issuer Premium

Within the DD, Ofgem has included the infrequent issuer premium which results in an additional 6bps on the cost of debt allowance for those licensees that issue new debt less frequently than other networks under the notional company due to their smaller RAV sizes and growth. The threshold defined for issuing new debt less frequently is less than £150m per annum on average. Neither SSEH or SSES have been awarded this additional premium within the cost of debt allowance and Ofgem has not explained why.

Oxera[30] has demonstrated through their analysis both SSEH and SSES have the correct characteristics to qualify for the additional premium including debt issuance on the base totex of less than £150m per annum. Oxera have also demonstrated that SSEH has the second smallest opening RIIO-ED2 RAV balance. Due to SSEH and SSES meeting the criteria for debt issuance of less than £150m per annum on average in the ED2 period on base totex allowance it is clear that both SSE licensees should be awarded the additional 6ps infrequent issuer premium in their cost of debt allowance. Ofgem's failure to do so comprises inconsistent treatment and is a material error.

3.4 Index Linked Debt

Ofgem has included the assumption in the ED2 DD that 25% of debt is index-linked to CPIH inflation, which is aligned with their SSMD and the RIIO GD/T2 working assumption. However, Ofgem has failed to provide any justification for this assumption within the DD or the SSMD: the only analysis we have of Ofgem's assumption is the RFPR data from 2017/18 which is now 4 years out of date.

Ofgem must at a minimum review the data provided in the most up to date RFPR submissions from 2020/21 and 2021/22. Based on the information available from the data source of the 2017/18 RFPR it is clear Ofgem have significantly overstated this assumption for the DNOs. Working with Oxera we have identified a number of anomalies within the data that materially distort this assumption for DNOs including:

- The inclusion of National Grid Gas Transmission, which has a significantly high portion of index linked debt, distorting the overall average.
- The question as to whether the assumption should be based on the overall industry or just the DNOs as the data states that nine companies within the industry do not have any index linked debt, six of which are DNOs.

[29] Oxera, Financeability of the RIIO-ED2 Draft Determinations (August 2022)
[30] Ibid.

If Ofgem were to update their analysis to just take account of the DNO data based on the 2017/18 data available the index linked debt assumption should reduce from 25% to circa 10%. Oxera have updated this assumption within their analysis of the DD and while keeping all else equal to DD this assumption has a negative impact of circa 0.1 on AICR and 0.3% on FFO/NetDebt for both SSEH and SSES. This clearly demonstrates that Ofgem has masked Financeability through errors in their calculations within the DD.

3.5 Conclusion

We have demonstrated above, supported by robust and detailed evidence, the most appropriate methodology for the Cost of Debt Allowance for RIIO-ED2. In summary, SSEN Distribution considers that Ofgem's material errors in the Cost of Debt assessment include the following:

1. **Ofgem has included a material risk of under funding through its cost of debt allowance** by not taking into account current market conditions including significantly increasing interest costs.
2. **Ofgem has understated the additional costs of borrowing** and risks material underfunding on the cost of debt.
3. **Ofgem has failed to apply the infrequent issuer premium to SSES and SSEH** even though the supporting evidence clearly demonstrates that both licensees should qualify for the additional 6bps**.**
4. **Ofgem has incorrectly calculated the index linked debt assumption.** Based on the data provided from 2017/18 and accounting for the evidence of reviewing from a DNO perspective as opposed to total industry, the assumption has been overstated by circa 15%.

Ofgem must increase the CoD allowance by re-calibrating the trailing average such as to 22 years or adding an additional 30-40bps in additional funding over and above the 17 year trailing average.

4. Financeability

As a core requirement of our Business Plan, we evaluated our financeability under a range of scenarios including a mixture of totex expenditure above our Certain View or ex-ante totex proposal. Central to that assessment was a reliance upon using rating agency methodology and in particular assuming zero out or under performance against the regulatory settlement. The scenarios around this central view then informed the extent of buffer that we could absorb over the course of the price control.

As demonstrated below, Ofgem has sought to mask financeability issues within RIIO-ED2 by using number of levers to solve credit rating ratio issues instead of correcting for its material errors on the cost of equity. Oxera[31] have supported us in evaluating Ofgem's methodology and analysis. Throughout this analysis a number of material errors have been identified and these mask clear financeability issues within RIIO-ED2. In the DDs Ofgem[32] has set out its assessment of the notional company based on a broad judgement basis that companies are of comfortable investment grade as opposed to specifying a target rating and ranges for credit ratios. We demonstrated in our business plan that we would need to achieve at least a BBB+/Baa1 rating to ensure solid investment grade credit rating, to protect customers from higher borrowing costs of a lower rating. This is in line with Ofgem's target credit rating over RIIO-2 including ED2.

To ensure consumers are not exposed to unnecessarily and materially higher borrowing costs, the price control financial package must meet the requirements of a BBB+/Baa1 rating, which currently it does not. In evaluating financeability, we have considered both debt and equity financeability which covers credit ratings based on key credit ratios as well as the returns to equity holders over the RIIO-ED2 period. This section is structured as follows:

- Approach to Financeability – in this section we evaluate Ofgem's assumptions including the definition of the notional company.
- Errors in Ofgem's Own Financeability Assessment – we then outline the errors in Ofgem's financeability assessment including showing the net impact on key credit and equity ratios.
- Impact of Asymmetric Risks and Price Control Calibration on Financeability – finally we summarise the net impact on key credit and equity ratios as a result of Ofgem's calibration of the price control. This includes the impact of overly ambitious and erroneous totex cost allowances, underfunding of UMs, and asymmetric ODIs. We also review the impact of a high totex investment case which further worsens ratios.

4.1 Approach to Financeability

The primary items Ofgem relies upon are set out in para 5.24 of its Finance Annex, which we have repeated below in Table 3. In this table we have included our assessment of whether these assumptions are appropriate before then explaining our assessment thereafter in section 4.2.

Table 3 – Ofgem Financeability Assumptions vs SSEN Distribution Assessment

Ofgem Assumption	Our Assessment
Cost of Equity Allowance	As we have demonstrated in section 2, Ofgem has made material errors in its calculation for cost of equity and it has therefore been set too low. We also show that after correcting for Ofgem's errors in its financeability

[31] Oxera, Financeability of the RIIO-ED2 Draft Determinations (August 2022)
[32] RIIO-ED2 Draft Determinations Finance Annex.pdf

	assessment, the CoE must be increased to at least 5.9% if not greater. In the absence of this correction, the credit rating will deteriorate over RIIO-ED2 and be at least one notch downgrade form the target rating of Baa1.
Gearing changed from 65% to 60%	We have demonstrated in section 4.2.2, that the reduction in notional gearing is masking a material financeability issue. As well as Ofgems inconsistency in credit metric targets for different factors. To maintain 60% gearing over RIIO-ED2, Ofgem are requiring large equity investments from shareholders and negative dividend yields.
Cost of Debt Allowance	As demonstrated in section 3, the cost of debt allowance is too low and will result in material under recovery of debt costs under current interest rate expectations and plausible high interest rate scenarios. The shortfall is at least 30-40bps.
Immediate switch to CPIH from RPI	Immediate switch to CPIH should not be used to mask financeability issues. We note that this accelerate cash flows but still does not solve financeability concerns in the short, medium or long term.
Dividend Yield of 3% of regulatory equity	We have demonstrated in section 4.2.5 how Ofgem has failed to meet this requirement in its analysis and in fact relies on negative dividend yields, i.e. net equity injection thereby requiring equity holders to subsidise debt investors.
No Totex out/underperformance	Ofgem has removed the ability to out perform through overly aggressive efficiency cuts and ongoing efficiency challenges creating an asymmetrical price control. This is in addition to the asymmetrical ODIs which must be considered as part of a robust financeability analysis.
Capitalisation Rates in line with DD proposal	Capitalisation rates should be set in line with companies natural opex/capex split and not used as a mechanism to improve financeability. The UMs capitalisation rate has also been set too high thereby adding pressure to equity financing. We covered this in a separate section.
Tax allowances are equal to tax costs	We continue to advocate for tax allowances to be equal to tax costs. Ofgem's policy goes some way to address this in RIIO-2 but falls short of full pass-through treatment.

The other items Ofgem notes are exclusion of lagged revenue items, application of its depreciation policy, and equity issuance transaction costs. We see no issue with these items based on the policy intent.

4.2 Errors in Ofgem's Financeability Assessment

In this section we will now expand further on our assessment of each of the key assumption factors on Financeability set out in Table 3 as well as provide supporting evidence.

4.2.1 Cost of Equity Allowance

We have already highlighted the material errors made by Ofgem in its DD cost of equity allowance proposal which we have set out in section 2. Setting the cost of equity allowance so low creates a significant downward pressure on financeability, contrary to Ofgem's statutory duty to secure that licence holders are able to finance the activities they are required to carry out.

4.2.2 Notional Gearing and ILD Assumptions

Ofgem has reduced the notional gearing level from 65% in RIIO-ED1 to 60% in RIIO-ED2 which gives the impression of enhanced credit metrics. As per the Oxera report the reduction in gearing Ofgem has taken is inconsistent with their view on the levels companies should be at for credit metric targets. The credit metric levels within the Ofgem analysis of the DD are at the lower level of Baa1 range whereas the level of gearing is on the threshold of A3/A2, which is a large inconsistency within Ofgem's financeability analysis. This demonstrates that Ofgem is using the notional gearing level as a mechanism to improve financeability for the notional companies and mask the underlying issues that need to be addressed to ensure financeability in practice, including an appropriate cost of equity, sufficient totex levels and symmetrical incentive packages.

Ofgem also does not take into account the impact on gearing or financeability if equity were not issued under either of the base or high case to maintain the new notional gearing position. Oxera assume investors are not willing to inject equity within their analysis which clearly results in an increase in both SSEH and SSES gearing position[33]. Also highlighted is a significant reduction in key credit ratios resulting in a downgrade to SSEH under the base and high case scenarios as well as a downgrade to SSES under the high Totex scenario.

As noted by Oxera, the ED sector is financed at a much lower percentage of ILDs than the 25% assumed by Ofgem. This artificially improves key credit ratios whereby the more appropriate assumption would be around 10% which is the sector average.

4.2.3 Cost of Debt Allowance

We have covered in depth in section 3 our evidence that the cost of debt allowance has been set too low and is not of a sufficient level to cover company debt costs, resulting in material under recovery. This undermines investor confidence by underfunding debt investors and relying on equity holders to subsidise such debt costs. This may undermine investment in the sector which would be a detriment to consumers.

4.2.4 Switch from CPIH to RPI

In line with RIIO-GD/T2 Ofgem has proposed an immediate switch from RPI to CPIH at the start of RIIO-ED2. On the basis that the UK will stop using RPI as of 2030 we have no major concerns with transitioning to CPIH from RPI. Ofgem's proposal for an immediate switch is reasonable as long as it is not being used to mask any issues on financeability, and analysis is carried out as to whether or not a phased transition is more appropriate.

[33] Oxera, Financeability of the RIIO-ED2 Draft Determinations (August 2022)

4.2.5 Dividend Yields

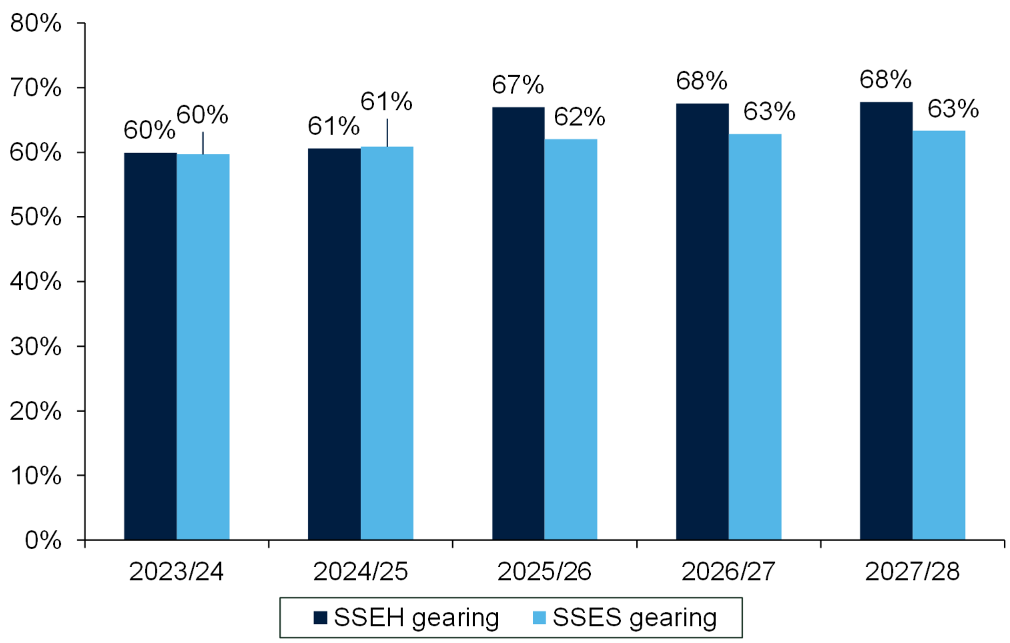
Ofgem has assumed a dividend yield of 3% in its financeability assessment as being a sufficient policy for a regulated network. Oxera have reviewed this assumption as part of their analysis and found that the financeability analysis Ofgem has undertaken does not support a 3% dividend yield prior to correcting for assumptions. SSES and SSEH would have to increase their gearing above notional level, SSEH reaching circa 68% under the base case Totex Scenario and circa 74% on the high case in order to pay a dividend of 3%. Ofgems analysis relies on assumptions that investors will be willing to make large equity injections into SSEH and SSES, this assumption is dubious and masks financeability issues.

4.2.6 Equity injection to reset net debt

As discussed in section 4.2.2 Ofgem has set out in the DDs that notional gearing is to be reduced to 60% from 65%, however, it fails to calculate how much equity is required to be issued to maintain notional gearing and the impact of financeability. This is an important omission as it hinders transparent assessment of equity financeability. Oxera show that without these equity injections over the period, the gearing increases significantly above the notional gearing and credit ratings deteriorate quickly. This is summarised by Figure 2 (2.1 and 2.2) below for SSEH and SSES is particularly worse in a high totex scenario as shown in Oxera's report. FFO to net debt falls below the Moody's threshold for Baa1 by third or fourth year of ED2 even when assuming neutral performance on ODIs and totex performance[34].

Figure 2 – Downward trend in FFO to Net Debt and upward trend in notional gearing

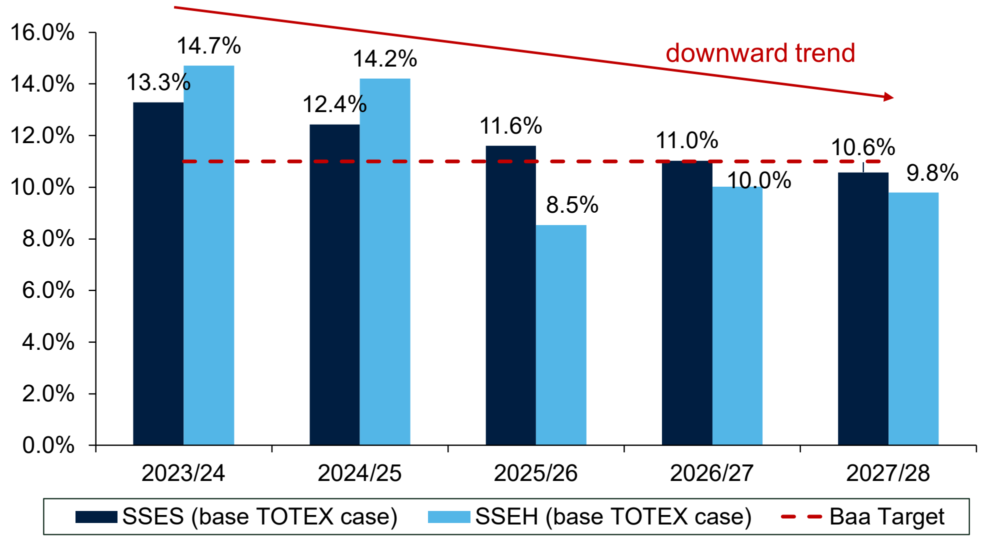
Figure 2.1 - Notional gearing over RIIO-ED2 without equity injections (SSEH and SSES)



Source: Oxera analysis

[34] The analysis in Figures 2.1 and 2.2 also assume that the notional company assumption on Index Linked Debt is accurate at 25% whereas we show that this is much lower across the sector at around 10%. These in particular worsen the AICR ratio which is a key ratio for achieving a set credit rating. This analysis also ignores any downside associated with asymmetric ODIs and underfunded totex (via the baseline totex or through UMs).

Figure 2.2 - FFO/net debt during each year of ED2 for SSES and SSEH under the base case TOTEX scenario



Note: The target for the Baa sub-rating for FFO/net debt is at 11% based on Moody's 2022 rating methodology.

Source: Oxera analysis based on Ofgem Draft Determinations PCFM.

4.2.7 Impact of Errors on Ofgem's Financeability Assessment

As previously stated Ofgem has not set a target rating or target ratios for credit metrics, taking a more general approach that companies are of comfortable investment grade. Within the RIIO – ED1 standard licence condition 40 Ofgem states:

"The licensee must take all appropriate steps within its power to ensure that at all times it maintains an Investment Grade Issuer Credit Rating"

If Ofgem is to maintain this licence condition within RIIO-ED2 it should be more specific on a target rating and range of ratios for its analysis to ensure the finance package for ED2 is sufficient to provide headroom above the Investment Grade Issuer Credit Rating to enable licensees to meet their licence obligations. When we cumulate the impact of the material errors and issues identified within the varying factors that impact financeability, credit metrics worsen significantly and both of our DNOs would have a credit rating significantly below strong investment grade credit rating i.e. BBB+ or Baa1.

The analysis of these credit metrics shows that Ofgem has failed to consider the impact on key credit ratios in particular the Adjusted Interest Cover Ratio (AICR) and the FFO to Net Debt. During its analysis of credit metrics and credit ratings Ofgem has focused on an overall average view, whereas it should take account of trends and individual metrics as this can highlight different conclusions. Our analysis of Ofgem's own financeability assessment shows that both of our electricity DNO licensees have downward trending credit metrics[35] across the ED2 price control under both the base and high totex case. A downward trend clearly demonstrates a financeability issue and likely to be at least one notch below the target investment grade. Ofgem must take account of this within the

[35] Oxera, Financeability of the RIIO-ED2 Draft Determinations (August 2022)

ED2 finance package. Also, over this period, we note that Ofgem require equity injections to retain gearing at around 60% which still fails to support key credit ratios required to achieve Baa1.

When correcting for the errors noted in Ofgem's assumptions as well as updating for more recent market data, Figure 3 prepared by Oxera demonstrates that credit ratios fall below the threshold required for Baa1. This assumes equity injections continue which further worsen these ratios for SSEH.

Errors in Ofgem's Notional Company Assessment

When considering the errors in Ofgem's financeability assessment, we find that there is a two notch downgrade in the credit rating implied by the key credit ratios. The material errors Ofgem has made in defining the notional company structure in isolation, result in the AICR and FFO to Net Debt being materially overstated. Ofgem has made the following errors when defining the notional company in RIIO-ED2.

- **Ofgem has materially overstated the proportion of Index Linked Debt within the sector** in defining the notional company. The average over the sector is around 10% of total debt and not 25% as Ofgem states for the notional company. Once corrected for, this significantly reduces key ratios such as the ACIR.
- **Ofgem has relied upon significant equity injections over RIIO-ED2 to ensure companies remain financeable** at the target investment grade credit rating. However, our analysis demonstrates that credit ratios continue to deteriorate despite these equity injections. This is in essence equity investors subsidising debt investors as a result of Ofgem errors and is a deterrent to financeability and investment.
- **Ofgem has reduced the notional gearing for RIIO-ED2 from RIIO-ED1 below what is actually the case for the sector**. Ofgem has used a de-gearing of DNOs from 65% to 60% to "prop up" credit rating ratios in RIIO-ED2. Ofgem has not justified why this would be appropriate and its current notional company definition is irrational. We have omitted this final point in our analysis as have Oxera for ease of comparison. Ofgem's analysis shows that credit ratios are materially lower than the target investment grade by at least one notch.

This is illustrated by Figure 3 (3.1 and 3.2) below based on our own analysis and that undertaken by Oxera[36].

[36] Oxera, Financeability of the RIIO-ED2 Draft Determinations (August 2022)

Figure 3 – Summary of Ofgem's own Financeability Assessment[37] (SSES and SSEH)

Figure 3.1 – SSES

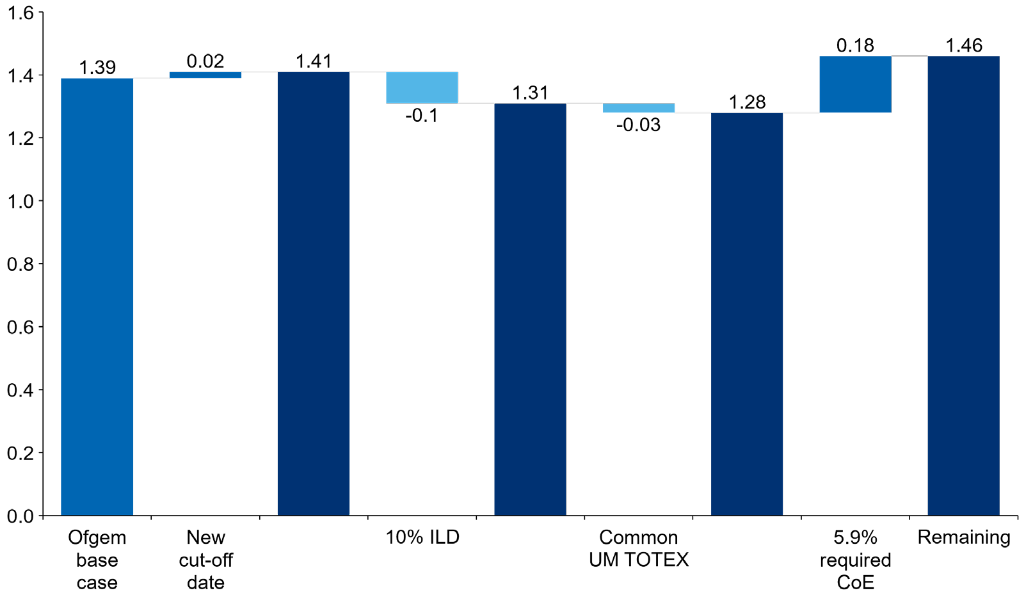
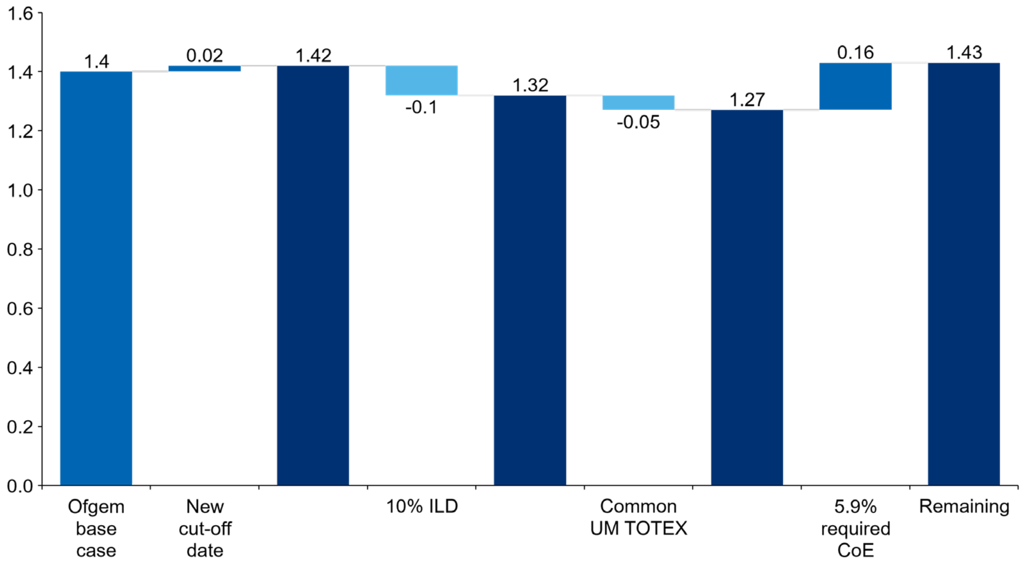


Figure 3.2 – SSEH



Note: All figures are simple averages over RIIO-2. The cut-off date of the PCFM and WACC allowance model has been updated from 29 April 2022 to 29 July 2022.

Source: Oxera analysis based on Ofgem's Draft Determinations PCFM.

Once these material errors are reflected in the analysis of key credit ratios, it shows that the CoE must be increased to satisfy the absolute minimum credit rating thresholds for key ratios such as the AICR and FFO to Net Debt. Oxera show that this value is 5.9% which is supportive of the observable

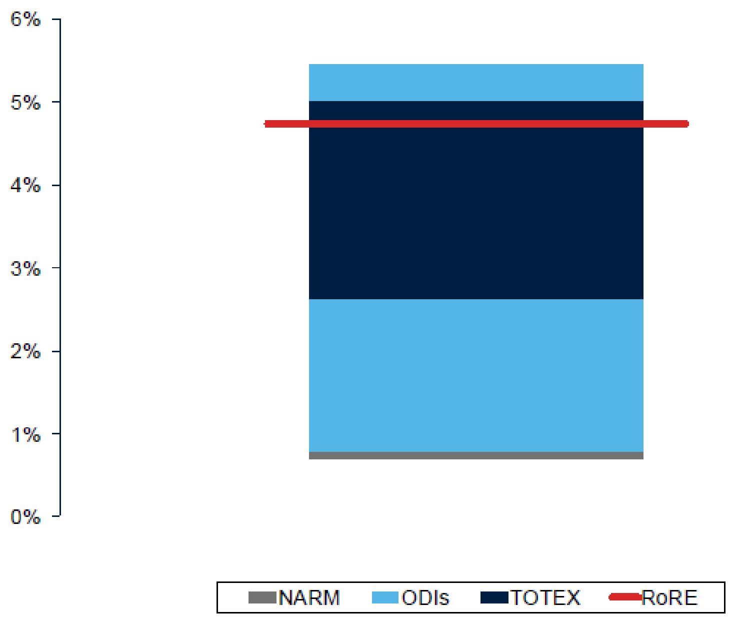
[37] This has been constructed by Oxera based on a review of the credit ratios for SSEH and SSES.

and reliable market evidence presented in setting the CoE for RIIO-ED2. This is prior to evaluating the asymmetric nature of ODIs and errors Ofgem has made in funding UMs or totex allowances.

4.3 Asymmetry of Risk and Financeability Concerns

The balance of risk within a price control is a key factor when calibrating a price control and must be considered as part of the financeability assessment. Current market conditions emphasise that RIIO-ED2 is being set with some degree of uncertainty and robust scenarios should be used to test and calibrate the price control including financeabilit parameters. Based on Ofgem DD, the balance of risk in ED2 is significantly asymmetrically negative across core elements of the price control. This is demonstrated in the Oxera Risk report submitted on behalf of the ENA[38]. This is summarised on a stylised basis in Figure 4 below which shows that the risk in RIIO-ED2 is negatively skewed compared to previous price controls.

Figure 4 – Illustration of the impact on asymmetric risks on RoRE – post RAMs[39]



Note: The figure does not include the impact of bespoke ODIs. The chart is based on sector-average data. The figure shows the impact of a +/- 10% deviation in the TOTEX expenditure relative to a central expectation that assumes that the DNOs will overspend the same amount disallowed by Ofgem as a result of the efficiency adjustment.

Source: Oxera analysis of Ofgem data.

This is the opposite of their policy intent to de-risk RIIO-2 whereby they set out to reduce the risk and therefore support lower equity returns. This unfortunately has not been the case and it summarised in more detail below:

1. **Ofgem's cost efficiency and cost benchmarking contains errors and has been set more aggressively than in previous price controls.** Ofgem has set out unrealistic totex cuts on the SSEN Distribution Business Plan with a total of 22% reduction in totex due to cost reductions

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[38] Oxera, RIIO-ED2 balance of risks (August 2022)

[39] ibid, Analysis prepared by Oxera

and Ofgem's ongoing efficiency targets. The reductions in Totex from Business Plan asks is 3-4 times higher than in RIIO-ED1 and that creates a higher probability to overspend rather than underspend. The risk is asymmetrically negative as a result and leads to material downside financeability issues and is a deterrent to investment over the period to the detriment of consumers. When considering the impact of overspending in RIIO-ED2 to deliver the outputs and investment required to achieve network health improvements and NetZero investment, the credit ratios fall significantly below the target investment grade rating. This is further supported by Oxera's report[40] which compares how significant the DD totex cuts are in ED2 vs ED1, demonstrating how much more challenging Ofgem has made the ED2 price control compared to previous price controls by completely eliminating the ability to outperform and materially increasing the risk of underperforming which will lead to significant financeability issues during ED2. In order to assess financeability for the base totex allowances we have carried out sensitivity analysis on the DD, where we have made an assumption of a 10% of totex overspend on the base totex case for our analysis. Overspend of 10% is a realistic assumption based on the overall 22% reduction in our totex requirement stated in our Business Plan. This assumption results in a credit rating reduction for both SSES and SSEH as well as significant equity injections, again demonstrating the material financeability issues within the ED2 price control.

2. **Ofgem's Output Delivery Incentives (ODIs) are asymmetrically negative** with the mid-point set at minus 1% with a maximum downside of 4% and maximum upside of just under 2% of the return on Regulatory Equity (RoRE). We evaluate the balance of risk using the mid-point of ODIs to consider the impact on credit ratios. We note that the CMA decided on PR19 to "aim up" on the CoE to compensate for the asymmetric nature of the price control. When considering the asymmetric nature of RIIO-ED2 ODIs, this requires an increase in the CoE to mitigate downside impacts on key credit ratios. There is also significant academic and empirical evidence supporting aiming up as a key regulatory principle. This is based on avoiding harm and risks of underinvestment and the evidence supports aiming up north of the 90th percentile[41]. Ofgem have ignored this principle and regulatory precedent alongside setting the CoE too low.
3. **Ofgem has rejected a series of UMs for SSEN-D thereby leading to a propensity to overspend at risk in RIIO-ED2 as a result of uncontrollable risks.** When factoring in the probability under a range of scenarios of overspending, key credit ratios fall below the target investment grade credit rating. The adverse impact on credit ratios is summarised in Figure 5 below which shows there is a material risk that credit rating may fall two or more notches below the target investment grade of Baa1. Uncertainty Mechanisms are a range of mechanisms set out by Ofgem in the DD to account for totex proposals that relate to spend that currently remains uncertain but allowances can be adjusted throughout the price control as changes develop and needs/costs become more certain. Ofgem has carried out its financeability assessment on the base totex allowance proposals within the DD and even though it has carried out analysis on UMs it has failed to take account of the UM impact within the overall finance package of ED2. Ofgem's analysis on the high case totex clearly shows that for eight DNOs the result would be ratings downgrade, for three (including SSEH and SSES) of which the rating would be downgraded to below investment grade[42]. Further

[40] Oxera, Financeability of the RIIO-ED2 Draft Determinations (August 2022)
[41] Oxera Report on Heathrow Airport Limited (2019)
[42] Ofgem (2022), 'RIIO-ED2 Draft Determinations — Finance Annex'

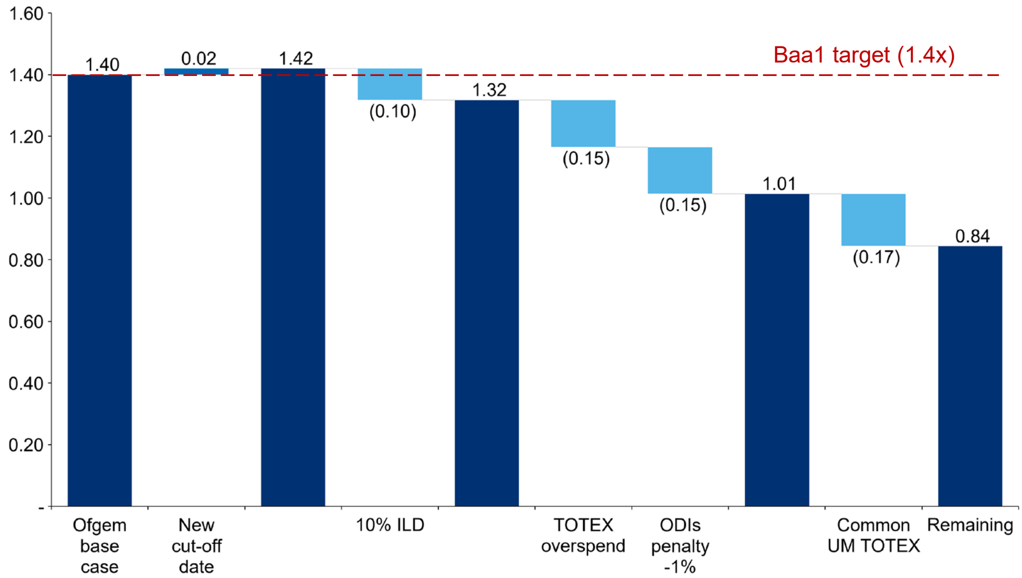
details on this analysis are included within the Oxera report[43]. This analysis further evidences that the financial package has been set too low for RIIO-ED2 and Ofgem is creating major financeability problems for the DNOs.

4. **Ofgem has not adequately considered the pressure on credit metrics and financeability as a result of high totex scenarios.** As we have set out in our response, we will need to invest over and above our baseline totex allowances to achieve NetZero as well as manage material uncertainties over RIIO-ED2. By conducting more comprehensive high totex scenarios, there is likelihood of pressure on credit ratings. This is shown in Figure 6 below whereby there is a need to ensure investment is retained and increased over the period while retaining investment grade credit rating and adequate returns to equity holders. This also supports the case for aiming up on the CoE to retain these key tenants of investment and financeability requirements.

The summary of the impact of these errors on financeability analysis for AICR is shown below in Figure 5. This demonstrates that credit ratios fall well below the threshold required to obtain Baa1 and in fact fall below investment grade credit rating thresholds at Baa3.

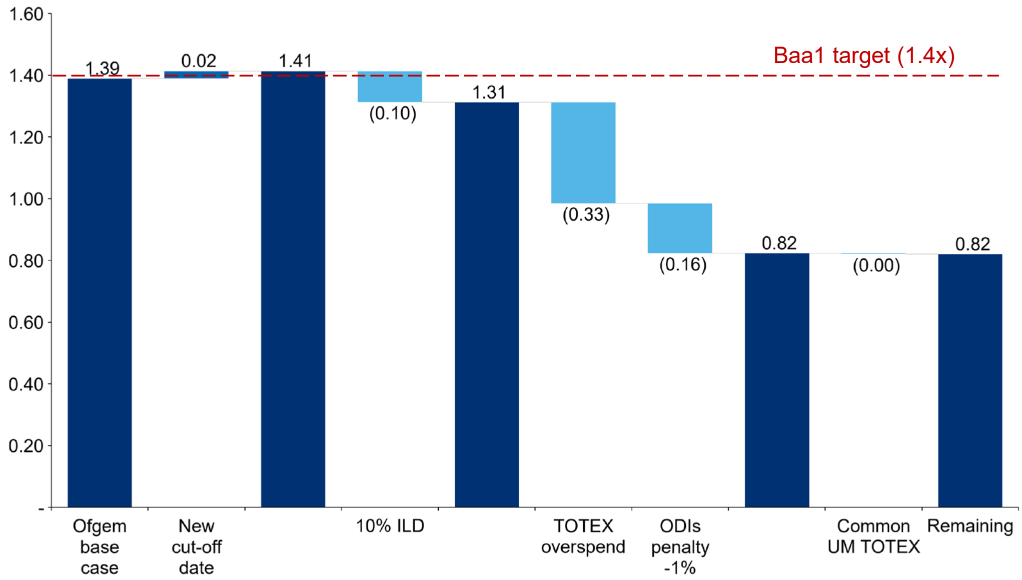
Figure 5 – Impact on Key Credit Ratios from Errors in the Price Control Calibration (SSEH and SSES)

Figure 5.1 – SSEH



[43] Oxera, Financeability of the RIIO-ED2 Draft Determinations (August 2022)

Figure 5.2 – SSES



Note: All figures are simple averages over RIIO-2. The cut-off date of the PCFM and WACC allowance model has been updated from 29 April 2022 to 29 July 2022. The TOTEX overspend scenario has been built assuming the same percentage of overspending that we have identified over the base case TOTEX scenario (compared to the business plan submission), on top of the high case TOTEX scenario. We do not show the impact of correcting the cost of debt on the chart, since for the scope of this representation we assume the cost of debt is fully funded.

Source: Oxera analysis based on Ofgem's Draft Determinations PCFM.

4.4 Conclusion on Financeability

As we have set out in this section, Ofgem's financeability analysis is not an accurate reflection of the underling financeability issues caused by its DDs for RIIO-ED2. We demonstrate with Oxera analysis the following conclusions from our assessment of Ofgem's financeability analysis:

- **Ofgem's own financeability analysis shows that the target investment grade credit rating of BBB+/Baa1 set by Ofgem is not achievable. By the end of RIIO-ED2, key ratios drop into one notch below this target credit rating.**
- **When correcting for Ofgem's notional company definition regarding the assumed 25% proportion of Indexed Linked Debt (ILD) in regulated networks to 10%, the credit ratios fall even further below the target investment grade credit rating**.
- **Ofgem's financeability analysis relies upon equity injections which leads to negative dividend yields over the RIIO-ED2 period. Therefore, equity holders are expected to subsidise debt investors and DDs does not support Ofgem's assumption of a 3% dividend yield.**
- **Ofgem have made a series of errors and calibrated the price control asymmetrically thereby resulting in credit ratios falling below the threshold required for investment grade credit rating. The asymmetric nature of ODIs, the aggressive totex reductions, and unfunded UMs in DDs lead to a significant reduction in key credit ratios.**
- **In order to mitigate the downside pressure on key credit ratios and credit ratings, Ofgem must correct their errors and increase the CoE to at least 5.9%. This assumes that the CoD is fully funded with an uplift of at least 30-40bps in the CoD allowance.**
- **There remains evidence in support of aiming up on the CoE to support the high totex expenditure scenario and therefore attract and retain investment over RIIO-ED2. This is**

consistent with regulatory precedents and will protect both consumers and companies by incentivising investment and mitigating financeability concerns.

5. Inflation

We strongly disagree with Ofgem's proposal to review the approach to indexing the Regulatory Asset Value (RAV) in RIIO-ED2. The current inflation approach is a foundation in the UK regulatory framework and is a key factor attracting investors, and investment in the networks industry is crucial at this critical time with the drive to Net Zero. Any sudden reactions to current market conditions will lead to potential detrimental effects for both consumers and investors. The industry requires investment at this crucial time to achieve Net Zero and to the proposed change to indexing the RAV will be less attractive to investors and carry a higher risk burden resulting in an increased risk for that investment, leading to higher cost of capital and therefore resulting in increased bills for consumers.

The price control is set based on using real allowed returns and inflation to protect investors and keep the cost of capital and bills as low as possible for consumers. This approach enables the sector to offer inflation protection to investors consistent with other regulatory sectors in the UK, Europe and globally for that matter. This ensures investment is retained and attracted to the sector while also keeping consumer bills as low as possible. In the absence of inflation protections, the allowed returns would need to be significantly higher to compensate for inflation risk or accept material underinvestment to the detriment of consumers. This is a lose-lose situation for investors and consumers.

The current approach to inflation has been consistent historically and is fully embedded within the price control. The impact of the "leveraging effect" referred to by Ofgem in the RIIO-ED2 Draft Determinations[44] is not an accurate reflection of long term investment horizon or movements in inflation. It is an opportunistic and impulsive reaction to a period of high inflation within the UK that will not persist into perpetuity. For example, over RIIO-1, inflation was significantly lower than Bank of England targets or "long run forecasts" but no adjustments were considered by Ofgem over that period of time because long run inflation is the basis in which price control parameters are set.

The ENA FWG asked Frontier Economics to review inflation treatment at a high level in response to Ofgem's questions in DDs. Their report[45] concluded similar to the above elements on inflation treatment.

Ofgem's approach would lead to a higher cost of capital to compensate investors either due to reopening a price control and the concerns around regulatory stability, or the introduction of inflation risk on a whim due to what many economic commentators believe are short term market conditions[46]. Even if there were an issue with the treatment of inflation in RIIO, which there has been no evidence to set out that there is, then any proposed change would require careful, comprehensive, and long running consultation and analysis.

[44] RIIO-ED2 Draft Determinations Finance Annex.pdf
[45] Frontier Economics, Inverse Inflation Exposure (Aug 2022)
[46] The OBR for example has inflation forecasted to fall over the RIIO-ED2 period quickly down to Bank of England targets around 2% CPI.