Cadent
Your Gas Network

RIIO-2 Sector Specific Methodology

Cadent response to Ofgem Finance Annex

March 2019

cadentgas.com/RIIO

Contents

A note on supporting consultancy work

To avoid unnecessary duplication of submissions to Ofgem, reports commissioned by the Energy Networks Association RIIO-2 Finance Workgroup (and referenced by Cadent within this document) will be submitted as part of the ENA response to the Sector Specific Consultation.

A new report commissioned directly by Cadent to support our response to the Finance Annex questions is included as an annex to this document.

Oxera are currently developing two new reports for the ENA which will be provided to Ofgem shortly after close of the consultation. This is to give Ofgem the opportunity to comment on the draft reports via enagagement with the ENA workgroup prior to finalising the reports.

Reports previously provided to Ofgem for 2018 RIIO-2 Framework Consultation referenced in Cadent Sector Specific responses:

1. Oxera (2018): The cost of equity for RIIO-2
2. NERA (2018): Estimating Beta Risk at RIIO GD-2

New reports referenced in Cadent Sector Specific responses to be submitted via the ENA response:

1. NERA (2019): Cost of Debt at RIIO-2
2. NERA (2019): Cost of Equity Indexation using RFR
3. NERA (2018): Further evidence on TMR
4. Oxera (2019): Rates of return used by Investment Managers
5. Frontier Economics (2019): Adjusting Baseline Returns for Anticipated Outperformance
6. KPMG (2019): Assessment of Ofgem's Cashflow Floor Proposals

New reports referenced in Cadent response to be submitted to Ofgem post Sector Consultation close:

1. Oxera (2019): The Estimation of Beta and Gearing
2. Oxera (2019): Asset Risk Premium and Debt Risk Premium

New reports commissioned by Cadent provided as an annex to this document:

1. KPMG (2019): Cost of Equity and the RIIO-2 Consultation

Cost of Debt

- **Cadent continues to support full indexation of debt allowances, continuing the benefits seen by consumers in RIIO-GD1. The methodology should be updated to reflect the sector cost of debt. The segmentation of Cadent from National Grid has a material impact on Cadent and sector cost of debt and we will continue to work with Ofgem to ensure this is correctly reflected.**
- **NERA's pre-business plan submission assessment of a recalibrated index for RIIO-GD2 points to a transition to a longer term trailing average than the current 10 years used; a move in weighting towards BBB rated bonds, and no evidence for a halo effect.**
- **We do not propose to share performance relative to cost of debt allowances in year. We propose networks continue to take full responsibility for their financing decisions.**
- **When adjusting the nominal iBoxx for inflation (CPIH), our main priority is to ensure that the adjustment is made on an NPV neutral basis and reflects the most accurate measure of inflation.**

FQ1. Do you support our proposal to retain full indexation as the methodology for setting cost of debt allowances?

Cadent supports retention of full indexation as the methodology for setting cost of debt allowances as a reasonable proxy for a sector's forecast costs. This should be reviewed and recalibrated each price review to reflect debt maturity and credit rating of the sector. As noted in our previous response, and supported by NERA in their report for the ENA[1], a longer term trailing average and / or adjustment for the weighting between A and BBB rated bonds are likely to be necessary as continuation of the existing 10-year trailing average will not reflect the debt portfolio that the sector is exposed to going forward.

Above other potential options, by providing an objective and predictable market based benchmark, this approach maintains an incentive on network organisations to raise debt as efficiently as possible, and best encourages taking a long term perspective when making debt financing decisions, to the long term benefit of consumers.

Full indexation also has the benefit of having an established methodology (subject to future re-calibration, and adjustment for CPIH based inflation indexation) with proven success in the RIIO-1 price controls. On this basis, full indexation best satisfies Ofgem's stated policy objective for the cost of debt allowance that ***"the calculation of the allowance should be simple and transparent while providing adequate protection for consumers"*** [2]

Cadent does not support partial indexation as this would add unnecessary additional complexity, requiring retrospective reconciliation or true up where embedded debt costs have evolved over time. Provided that full indexation is periodically re-calibrated, and can be proven to be a reasonable proxy for sector debt costs, we do not see that any additional value to consumers would be provided through partial indexation.

We also refer back to the RPI-X@20 and RIIO handbook, in which Ofgem stated that it envisaged "retaining the same index subject to a check that the index still provides a reasonable estimate of the cost of debt"[3]. Ofgem's proposals therefore are aligned to this previous commitment.

[1] NERA (2019): Cost of Debt at RIIO-2
[2] Ofgem (2018): RIIO-2 Framework Decision, p52
[3] Ofgem (2010): Handbook for implementing the RIIO model, para 12.16

FQ2. Do you agree with our proposal to not share debt out-or-under performance within each year?

Cadent agrees that debt out-or-under performance should not be shared with customers in year. To do so would be inconsistent with Ofgem's stated policy objectives for the cost of debt allowance, as previously decided in the 2018 framework decision document[4], specifically:

a) ***Consumers should pay no more than an efficient cost of debt***

b) ***The cost of debt allowance should be a fair and reasonable estimate of the actual cost of debt likely to be incurred by a notionally geared, efficient company***

c) ***Companies should be incentivised to obtain lowest cost financing without incurring undue risk***

If the allowance is set as a reasonable proxy for the sector, it follows that, for a variety of reasons, any single company may outperform or underperform in any single year. Asymmetrical sharing of outperformance therefore unbalances the sector level allowance proposition, whilst symmetrical sharing amounts to a pass through, an option previously ruled out by Ofgem.

A key benefit of the full indexation approach is that periodic recalibration of the index, as well as its annual update, essentially results in sharing of performance between networks and customers through update for the most recent market data and re-assessment of sector level costs, whilst maintaining the incentive properties that keep sector level costs low in the long term.

We agree with Ofgem's appraisal of the challenges posed by sharing debt performance, particularly with regard to the allocation of materially more company risk to consumers. We subscribe to the long held regulatory principle that organisations are best placed to manage financing risk. We refer back to the RIIO handbook which stated: ***"it is for the network companies themselves to choose their actual financial structure and they (and their investors) bear the risks associated with the choice made. The regulatory framework is about identifying an appropriate allowed return, reflecting an assumed notional gearing"***.[5]

FQ3. Do you have any views on the next steps outlined in Paragraphs 2.22 to 2.25 for assessing the appropriateness of expected cost of debt allowances for full indexation?

Cadent supports Ofgem's approach in continuing to assess the appropriateness of the full indexation methodology as a proxy for sector level debt costs. Indeed, it is important that the indexation methodology is periodically assessed to ensure that it remains fit for purpose throughout the forthcoming price control period, and so that it can take full account of changes in the market, and changes in circumstances within network organisations.

We will continue to work with Ofgem and the industry to take appropriate account of the impact of the Cadent separation from National Grid on measured debt performance, and on sector average debt costs. This will ensure that allowances are not inappropriately skewed to the disadvantage of network companies' debt providers overall. Cadent commissioned KPMG to support in analysis of Cadent's pre and post transaction debt costs, and the report was shared with Ofgem in advance of the Sector Specific consultation, as referenced in the footnotes to the Finance Annex.

[4] Ofgem (2018): RIIO-2 Framework Decision, p52
[5] Ofgem (2010): Handbook for implementing the RIIO model, para 12.11

Cadent fully supports Ofgem's use of data gathered via the new Regulatory Finance Performance Report (RFPR) for the purpose of understanding network actual debt costs. We also agree that company business plan submissions will also provide useful indicators of the possible quantum and timing of debt issuance during the next price control, to assist in the appraisal of likely actual debt costs against allowances.

To support in the assessment of sector debt costs, the Energy Networks Association (ENA) RIIO-2 Finance Workgroup commissioned NERA Economic Consulting (NERA) to collect and analyse company debt performance over RIIO-1 and RIIO-2[6]. NERA's modelling approach follows that of Ofgem for informing the RIIO-ED1 indexation design, and has presented sector forecasts based on a company weighted average basis, as recommended by Ofgem through engagement with the ENA workgroup. NERA have also examined the "halo effect", debt transaction costs and costs of carry – all areas Ofgem is looking to explore in its next steps on debt allowances. The key conclusions of the report are:

- GDNs are expected to under-perform the existing mechanism in RIIO-GD2 both including and excluding derivatives. This is consistent with Cadent's own internal analysis, and the widening of expected underperformance at the end of the RIIO GD-2 period indicates that, over time, the current index will not reflect the debt structure that the GDN sector is exposed to. This is likely to be a consequence of a large proportion of fixed embedded debt anchored to network hive down in 2005, i.e. more than 10 years ago.
- Ofgem's assessment of the halo effect for RIIO-1 controls did not compare bonds on a like for like basis, and notably not controlling for tenor and / or rating. NERA find that the apparent halo observed by Ofgem for RIIO-GD1/T1 was driven by the inclusion of low cost index linked debt from the mid 2000's and through not controlling for rating differences between utility bonds and the iBoxx. NERA also find that the halo observed by Ofgem for RIIO-ED1 is eliminated when controlling for the tenor of DNO bonds and concavity in the shape of the yield curve. Additionally, the CMA found no evidence of the halo effect post 2009, in the BGT RIIO-ED1 appeal.
- When updating previous RIIO-1 analysis to the end of 2018, NERA find no evidence of halo for nominal debt, and a "negative halo" for index linked debt post 2010. NERA find that the halo observed by CEPA in their February 2018 report for Ofgem was flawed through its use of coupon as the measure of cost of debt (when many GBP bonds were issued below par), and through not controlling for energy sector bond ratings at the point of issue.
- NERA are conducting ongoing analysis on debt transaction costs, liquidity costs and costs of carry, based on company actual data. Whilst this analysis has not yet fully concluded, the estimated combined cost appears to be at least 10 basis points higher than CEPA's recommendation of 0.10%.[7]

FQ4. Do you have a preference, or any relevant evidence, regarding the options for deflating the nominal iBoxx as discussed at Paragraph 2.14? Are there other options that you think we should consider?

As covered in our response to FQ29, we are not at this stage certain that an immediate switch to CPIH is proven to be the optimal solution from customer bill profile and financeability perspectives. Without pre-judging any particular outcome, our general view as a point of principle is that actual inflation should be utilised as far as possible, and where necessary to set positions initially on the basis of forecasts, this should be done consistently and holistically, with subsequent true up to actual positions.

[6] NERA (2019): Cost of Debt at RIIO-2
[7] CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p40

We offer an opinion on FQ4 in the interests of furthering debate within the consultation, but this should not be construed as acceptance of an immediate switch to CPIH.

Cadent recognises the challenges and complexities associated with deflating the nominal iBoxx in the absence of CPIH based gilts, and also the problems associated with the use of break-even inflation.

Of the options presented by Ofgem, we consider that, where supported by systematic update for changes in OBR forecast, and review for CPI / CPIH divergence and the emergence of specific CPIH forecasts, that deflation of nominal iBoxx in one step by using the expected value for CPIH is the better solution (option (ii) in paragraph 2.14). Given the tenor of the bonds then we suggest using the longest available OBR forecast, currently 5-years, as a single figure for deflating the nominal yields.

However, we consider that the historical nominal iBoxx could be deflated at actual inflation rather than using break-even inflation (difference between nominal and real gilts). This would peg the index closer to real economic conditions, and avoid the distortion that arises from the break-even inflation approach (where actual out-turn inflation diverges). This would also better harmonise the underlying approach to revenue indexation which is based on actual inflation. The historical CPIH data series exists to support this approach if required.

Risk-free Rate

- **Cadent supports indexation of the risk free rate, with an annual update based on an agreed objective measure. We anticipate the impact to allowed returns, revenue and customer bills will be minor.**
- **Our view is that deflated nominal 20-year gilts may provide a more reliable data source than a real zero coupon gilt.**
- **When deriving a CPIH stripped real equivalent, NPV neutrality and consistency across the overall framework must be maintained.**
- **Correction of equity beta for gearing related issues would further reduce the low level of anticipated impact of RFR indexation.**

FQ5. Do you agree with our proposal to index the cost of equity to the risk-free rate only (the first option presented in the March consultation)?

Our general view

Cadent remain of the opinion that if any component of the CAPM based cost of equity were to be indexed, then the risk-free rate (RFR) is probably the most measurable and objective. An indexed RFR would be one of a number of new dynamic mechanisms that Ofgem is proposing in the RIIO-2 controls, and therefore a potential source of customer bill variability, which we examine below.

Limited variability of customer bills resulting from RFR indexation

Based on the "Step 1" low and high CPIH stripped cost of equity cases and expected RFR increase scenario presented in the consultation document, we expect that indexation of the RFR would have a very small impact on the cost of equity calculation as illustrated in the table below.

Table F1: Impact of risk-free rate indexation on Ofgem proposed allowed cost of equity

		FLAT RISK-FREE RATE PROFILE					GROWING RISK-FREE RATE PROFILE				
OFGEM LOW	YEAR ENDING 31ST MARCH	2022	2023	2024	2025	2026	2022	2023	2024	2025	2026
	TOTAL MARKET RETURN	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
	RISK FREE RATE	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.60%)	(0.56%)	(0.53%)	(0.51%)	(0.49%)
	EQUITY RISK PREMIUM	6.94%	6.94%	6.94%	6.94%	6.94%	6.85%	6.81%	6.78%	6.76%	6.74%
	EQUITY BETA	0.646	0.646	0.646	0.646	0.646	0.646	0.646	0.646	0.646	0.646
	COST OF EQUITY	**3.79%**	**3.79%**	**3.79%**	**3.79%**	**3.79%**	**3.83%**	**3.84%**	**3.85%**	**3.86%**	**3.86%**
	DIFFERENCE TO FLAT PROFILE						***+0.03%***	***+0.05%***	***+0.06%***	***+0.06%***	***+0.07%***
OFGEM HIGH	YEAR ENDING 31ST MARCH	2022	2023	2024	2025	2026	2022	2023	2024	2025	2026
	TOTAL MARKET RETURN	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
	RISK FREE RATE	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.60%)	(0.56%)	(0.53%)	(0.51%)	(0.49%)
	EQUITY RISK PREMIUM	7.44%	7.44%	7.44%	7.44%	7.44%	7.35%	7.31%	7.28%	7.26%	7.24%
	EQUITY BETA	0.762	0.762	0.762	0.762	0.762	0.762	0.762	0.762	0.762	0.762
	COST OF EQUITY	**4.98%**	**4.98%**	**4.98%**	**4.98%**	**4.98%**	**5.00%**	**5.01%**	**5.02%**	**5.02%**	**5.03%**
	DIFFERENCE TO FLAT PROFILE						***+0.02%***	***+0.03%***	***+0.04%***	***+0.04%***	***+0.05%***

Source: Cadent analysis of Ofgem cost of equity scenarios.

The impact could be suppressed where Ofgem round cost of equity to one decimal place as has been historical practice. Based on the scenarios presented, a rough estimate of the impact to total GDN allowed revenues and average customer bills is shown in the table below (all figures in 2018/19 prices).

Table F2: Impact of risk-free rate indexation on GDN allowed revenue and domestic bills

YEAR ENDED 31ST MARCH		2022	2023	2024	2025	2026
OFGEM COST OF EQUITY (LOW)	GDN ALLOWED REVENUE (£M)	2.5	3.6	4.5	5.0	5.6
	DOMESTIC BILL IMPACT (£ PER ANNUM)	£0.09	£0.13	£0.16	£0.18	£0.20
OFGEM COST OF EQUITY (HIGH)	GDN ALLOWED REVENUE (£M)	1.7	2.4	3.0	3.4	3.8
	DOMESTIC BILL IMPACT (£ PER ANNUM)	£0.06	£0.09	£0.11	£0.12	£0.14

Source: Cadent analysis based on closing RIIO-GD1 RAV per GDN PCFM published Ofgem in Nov-18 and customer numbers taken from 2017-18 GDN RRP submissions.

There is mathematical consequence that the impact of the risk-free rate within the CAPM calculation is diminished the closer the equity beta is to one. As we discuss in the equity beta section below, we have some serious methodological concerns with regards to how in Ofgem's application of the gearing adjustment to observed raw equity betas is being applied. Correction of these will increase the equity beta above the levels presented in the consultation document. Therefore, should the risk-free rate increase to a greater extent that shown in the consultation document, the effect is likely to be more than offset by the correction to equity beta. We have updated table F1 to show the impact of revised equity betas on potential RFR indexation (please note that only the equity beta parameter has been updated against Ofgem's published Step 1 cost of equity range):

Table F3: Impact of risk-free rate indexation with revised equity betas

		FLAT RISK-FREE RATE PROFILE					GROWING RISK-FREE RATE PROFILE				
LOW	YEAR ENDING 31ST MARCH	2022	2023	2024	2025	2026	2022	2023	2024	2025	2026
	TOTAL MARKET RETURN	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%	6.25%
	RISK FREE RATE	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.60%)	(0.56%)	(0.53%)	(0.51%)	(0.49%)
	EQUITY RISK PREMIUM	6.94%	6.94%	6.94%	6.94%	6.94%	6.85%	6.81%	6.78%	6.76%	6.74%
	EQUITY BETA	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83	0.83
	COST OF EQUITY	**5.07%**	**5.07%**	**5.07%**	**5.07%**	**5.07%**	**5.09%**	**5.09%**	**5.10%**	**5.10%**	**5.10%**
	DIFFERENCE TO FLAT PROFILE						***+0.02%***	***+0.02%***	***+0.03%***	***+0.03%***	***+0.03%***

HIGH	YEAR ENDING 31ST MARCH	2022	2023	2024	2025	2026	2022	2023	2024	2025	2026
	TOTAL MARKET RETURN	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%	6.75%
	RISK FREE RATE	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.60%)	(0.56%)	(0.53%)	(0.51%)	(0.49%)
	EQUITY RISK PREMIUM	7.44%	7.44%	7.44%	7.44%	7.44%	7.35%	7.31%	7.28%	7.26%	7.24%
	EQUITY BETA	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
	COST OF EQUITY	**6.30%**	**6.30%**	**6.30%**	**6.30%**	**6.30%**	**6.31%**	**6.31%**	**6.31%**	**6.31%**	**6.32%**
	DIFFERENCE TO FLAT PROFILE						***+0.01%***	***+0.01%***	***+0.01%***	***+0.01%***	***+0.01%***

Source: Cadent analysis of Ofgem cost of equity scenarios.

Business plan guidance should include the forecast impact of any indexed elements

Cadent agrees that where indexation is based on a sound methodology it could remove subjectivity and forecasting error from the cost of equity determination process. However, we disagree with Ofgem's comment that RFR forecasts are not needed to set the cost of capital. An important part of the RIIO-2 process is to provide a truthful appraisal of customer bills over the price control period. From a consumer perspective, if initial RIIO-GD2 revenues are set based on a flat RFR where there is a clear expectation that it will only increase this would seem a somewhat unrealistic starting position. Even if the impact appears to be small, it is important to fully consider the potential impact of regulatory mechanisms on bill trajectory and variability, to avoid any surprises.

Conversely, the point of an index is that it would track with observable conditions, and it cannot be guaranteed that the RFR will increase. Indeed recent experience has shown marked reduction to the RFR. Accordingly, the sensitivity of financeability to a reducing RFR should be explored. If the proposed Cash Flow Floor mechanism is implemented (which we oppose), it would be unreasonable for this to be triggered by a downward movement in an indexed component of the framework. This applies equally to any indexed component, not just the RFR. It is clearly important that the overall framework provides sufficient headroom to absorb downward movements in dynamic components.

We propose that initial allowed revenues should be set based on the best forecasts available at the time, and adjusted thereafter. This should apply to any indexed component of the framework including the cost of debt and real price effects, regardless of their expected directional forecast. This should help to minimise any differences between the opening forecast bill profile, and the actual outcome, without diminishing the value of using indexation. Cadent therefore requests that Ofgem gives due consideration to the provision of forecasting scenarios for indexed components generally as part of the RIIO-2 business plan submission and determination processes.

Indexation of the Risk-Free Rate in practice

We request that Ofgem clarifies how risk-free indexation would work in practice within the Sector Specific decision document, given the proposed 3 step approach to cost of equity determination. Only Step 1 includes a component by component calculation of the CAPM based cost of equity. Step 2 involves a judgemental narrowing of the range based on cross checks, but without specifying which component of the cost of equity has changed, or restating the range on a component by component basis. Step 3 (which we oppose) involves a judgemental overlay which further breaks the link to the CAPM calculation. If indexation is applied at Step 1, then Step 2 and Step 3 would likely negate or mask the impact of the index. Indexation could be applied post Step 2, but this would require a restatement of the range (and therefore mid-point) on a component by component basis, because of the interaction of the risk-free rate with the equity risk premium and equity beta in the CAPM formula. As such, where business planning assumptions are provided for the cost of capital, these should include a profile for the impact of risk-free rate indexation (the Sector Specific consultation document only showed a forecast for risk-free rate growth in itself).

FQ6. Do you agree with using the 20-year real zero coupon gilt rate (Bank of England database series IUDLRZC) for the risk-free rate?

We do not agree with this approach. Instead, Cadent supports the recommendation of NERA in their report for the ENA[8], to use deflated nominal 20-year gilts. The principle factors raised by NERA supporting this approach are:

1. In practice, investors, corporations and financial analysts use longer term gilts.
2. NERA provide analysis to demonstrate that longer term nominal gilts are more stable than the real equivalents, and more stable that short term gilts.
3. Nominal gilts are more objective, and overcome the excess demand / structural imbalance associated with the real equivalents resulting from pension fund obligations.
4. UK and European regulatory precedent supports use of 10 – 20 year nominal gilts.
5. A 20 year tenor is well matched to the typical remaining regulatory asset life of 22.5 years, and so appropriate for the investment horizon of regulated network assets.

FQ7. Do you agree with using the October month average of the Bank of England database series IUDLRZC to set the risk-free rate ahead of each financial year?

We do not agree with this approach. As mentioned previously, we propose the use of 20 year nominal gilts as recommended NERA.

If the timing of the Annual Iteration Process (AIP) is expected to remain the same in RIIO-GD1 (November), then measuring a position up to the end of October would appear to be a sensible start point for setting the year ahead risk-free rate to ensure that the most recent market information is taken into account.

However, as examined by NERA in their report for the ENA, taking the October month average may expose the index to a greater degree of volatility, which will then carry through into bills and financeability. In order to minimise such volatility, taking a longer period (i.e. a 12 month average over the period of 1st November to 31st October) would appear appropriate.

Out of necessity for the AIP, the RFR index would need to be set in advance of the relevant formula year (i.e. around 5 months in advance). Ofgem could therefore consider implementing an element of short range forward projection to reflect an expected index at 1st April and / or consider subsequent true up to an actual position via the AIP. This could help ensure revenues are based on the most accurate view of the RFR possible. The true up of inflation between a forecast used for charging and a final actual positon is an existing mechanism in RIIO-GD1, and we propose that a similar approach could be taken here.

FQ8. Do you agree with our proposal to derive CPIH real from RPI-linked gilts by adding an expected RPI-CPIH wedge?

We do not agree with this proposal. As covered in our response to FQ6, we believe that the use of deflated 20 year nominal gilts provides the most stable and objective basis for indexing the risk-free rate.

Ofgem's proposal incorporates the distorting issues associated with break-even inflation (as noted in our response to FQ4).

[8] NERA (2019): Cost of Equity Indexation using RFR

Where, out of necessity, forecasts for inflation are required, we recommend that the quarterly HM Treasury 'Forecasts for the UK Economy' reports are used (these are currently the basis for establishing year ahead RPI forecast for the purposes of revenue indexation in RIIO-GD1). The timing of these reports will support the Annual Iteration Process where these are expected to occur each November for RIIO-2.

However, as a point of principal we reiterate our view that any inflation forecast is trued up to actual positions, and that this is done systematically and holistically within the PCFM, to ensure that any inflation touch points are fairly and consistently treated.

Total Market Returns

- **We believe that Ofgem's quoted range for Total Market Returns is understated.**
- **Cadent does not agree with Ofgem's view that investors are agnostic to the Government's selected measure of inflation and how differences in investors' inflation expectations impact their expectations of real returns when deflating nominal return expectations.**
- **Ofgem's allowance of 77 basis points for the conversion to arithmetic mean is insufficient based on the overwhelming weight of evidence previously provided by Oxera.**
- **The nature of the forward looking evidence employed by Ofgem adds additional downward bias to its range (e.g. specification of DGM models).**
- **Much of the new evidence provided by Ofgem has limited applicability.**

FQ9. Do you have any views on our assessment of the issues stakeholders raised with us regarding outturn inflation, expected inflation, and the calculation of arithmetic uplift (from geometric returns)?

Cadent are aware of a report by NERA for National Grid from May 2018 which makes detailed recommendations for the appropriate inflation indexation of long range historical market returns[9]. NERA demonstrate that the approach used in the 2018 UKRN study in respect of historical CPI deflation back to 1900 is unreliable, and that historical returns should be first assessed on an RPI basis and then converted to a CPI equivalent using the RPI-CPI wedge observed since 1989, the only period for which the wedge can be reliably estimated. We believe that the UKRN approach is a change in methodology, and creates a distorted re-translation of history. We do not believe that Ofgem has appropriately addressed this issue in the Sector Specific consultation and hence this remains an open point.

Ofgem were presented with evidence provided by NERA[10] ahead of the Sector Specific consultation, which we consider have not yet been addressed. The key points of NERA's analysis are:

1. Historical realised returns from major equity markets show no declining trend in TMR.
2. Forward looking Dividend Growth Model (DGM) estimates of the TMR do not indicate a reduction in expected returns.
3. As previously noted by the CMA, survey evidence on expected returns is unreliable.
4. That the positive relationship between real interest rates and returns previously argued by Ofwat in PR19, and cited by CEPA in supporting reports for Ofgem, reflects a clear misinterpretation of the DMS evidence.
5. That DGM estimates previously provided by CEPA for Ofgem require correction for the use of UK GDP growth forecasts as a proxy for dividend growth, when FTSE all share companies derive over 70% of earnings outside the UK.
6. CEPA's assertion of optimism bias in the analyst forecasts supporting the Bank of England DGM is based on outdated evidence pertaining to the US.
7. Adjustment of CEPA's DGM evidence results in a forward looking estimate of 1.2% - 1.7% higher than that presented in their 2018 report for Ofgem.

[9] https://www.ofgem.gov.uk/system/files/docs/2018/06/tos_sos_and_ena_responses_riio-2_frameowrk_consultation.zip
[10] NERA (2018): Further evidence on the TMR

We do not consider that the feedback provided by the ENA workgroup on arithmetic and geometric averages has been appropriately addressed in Ofgem's response. The intention of this feedback was to underline the importance of consistency in approach. Indeed Ofgem recognise the importance of this within the consultation document:

> *"…we are also mindful of the benefit to investors and consumers of predictability and stability in regulatory policy and judgements."*[11]

Ofgem note that the shift in geometric uplift adopted in the UKRN is not material. Our point is that it is a change in methodology which shifts the weight to geometric averages, and suppresses the resultant TMR range. We do not understand how application of the higher geometric uplift to US based measure of return necessarily addresses this point.

Whilst Ofgem notes that it continues to place most weight on long run historical averages, the methodology for the assessment of these averages has evolved, and it is not fully clear whether the same degree of weight has been consistently applied.

FQ10. Do you have any views on our interpretation of the UKRN Study regarding the TMR of 6-7% in CPI terms and our 6.25% to 6.75% CPIH real working assumption range based on the range of evidence?

In 2012, the TMR was determined at 7.25% RPI stripped, or 8.25% on a CPIH stripped basis for RIIO-GD1. For RIIO-ED1, this was reduced to 6.5% RPI stripped, or 7.5% in CPIH stripped terms, a reduction of 75 basis points, which we understand to be a combination of the step up in RPI inflation that occurred in 2011 (40 bps) and regulator judgement on contemporary evidence on expected returns (35 bps). Ofgem's mid-point in the Sector Specific consultation is now 6.5% in CPIH stripped terms, a reduction of 1% from the ED1 determination.

The 2003 and 2006 ranges quoted in previous advice to Ofgem were 6.5% to 7.5% real for application in an RPI based framework. Our view is that this should translate to a CPIH equivalent of 7.5% to 8.5%. It remains unclear to us how this range can be the same in both RPI and CPIH terms.

We note that the straight average of the 2017 DMS geometric and arithmetic average returns for the UK, US and the World is around 7.5% in CPIH stripped terms (with a range of 6.1% to 9.4%)[12]. Purely for the purposes of illustration, this assumes an equal weight to geometric and arithmetic averages. If Ofgem is applying most weight to this evidence (accepting that most could be any level greater than 50%), within the range of other evidence considered, it seems to imply that Ofgem is applying more weight to the lower end.

We consider that Oxera presented a very balanced review of a broad range of evidence on TMR in its report for the ENA in February 2018, and we are still supportive of the TMR range presented in that report, 6% to 6.5% on an RPI stripped basis, which is roughly equivalent to 7% - 7.5% in CPIH terms.[13]

Oxera have continued to support the ENA workgroup in assessment of an appropriate TMR range for RIIO-2, and have presented to Ofgem on this topic on a number of occasions throughout the framework and sector specific consultation period. In their February 2019 update[14], Oxera note that the most significant reasons for Ofgem's lower range are:

[11] Ofgem (2018): RIIO-2 Sector Specific Methodology, Finance Annex, p30
[12] Credit Suisse global investment returns yearbook 2017
[13] Oxera (2018): The cost of equity for RIIO-2, p6
[14] Oxera (2019): Review of RIIO-2 finance issues: Rates of Return used by investment managers

1. The UKRN report weighting of geometric averages versus Oxera's application of arithmetic averages, based on academic evidence.
2. Ofgem applying significant weight on other sources of information that point to significantly lower TMR estimates than historical averages (Dividend Discount Models and the opinion of the Investment Management industry)

As noted in our response to question FQ9, NERA have provided a critique of the DGM approach adopted by CEPA used to support Ofgem's RIIO-2 framework consultation.

Oxera's 2019 report for the ENA reviews the forecast rates of return on the equity market as published by asset managers serving retail investors, used as evidence by Ofgem in the RIIO-2 Sector Specific consultation, and also examines the methodology used by the Financial Conduct Authority (FCA) to determine the maximum rates of return that regulated asset managers are allowed to use when communicating with clients. The key conclusions are:

1. The FCA, consistent with its particular objectives, attributes significant weight to the lower end of the range of evidence it considers.
2. For reasons of prudence, the FCA relies on geometric as opposed to arithmetic averages, which creates a downward bias.
3. The FCA has specific objectives to protect consumers from over optimistic forecasts, and therefore needs to exert extra caution to avoid over estimation of returns. Oxera argue that in pursuance of its financeability duties, Ofgem is required to take a more balanced approach.
4. The publications referenced by Ofgem expllicity state that they cannot be used to 'advise clients and allocate funds', so they do not fulfil the stated objectives for this evidence.
5. Oxera further find that in the majority of cases, the publications used specifically state that the figures presented therein cannot be used as estimates of future returns.
6. Oxera consider that the predictive power of investment managers is poor, and the very broad ranges presented in some instances underline the challenges of predicting the TMR.

Cadent has never disputed that forward looking evidence has a role in the estimation of the TMR. However, we note that the outcome provided from DGM models is sensitive to the parameters chosen, and we request that Ofgem duly takes this into consideration in the interests of drawing on as wide a range of evidence as possible, and taking a balanced perspective.

The basis for the symmetrical narrowing of the range is a judgment on Ofgem's part, and the specific basis, or weighting of evidence used to arrive at this position is unclear.

FQ11. Do you have any views on our reconciliation of the UKRN Study to previous advice received on TMR as outlined at Appendix 2?

We appreciate the efforts that Ofgem have made to trace the movement in TMR advice over time. Such analysis is very useful in helping to objectively appraise the TMR assessment, and in helping translate highly technical academic evidence into a digestible format. However, it does not change our view on the fundamental issues in Ofgem's assessment of the TMR as outlined in our responses to the preceding TMR questions.

Equity Beta

- **There are significant errors and methodological issues in Ofgem's treatment of gearing in the beta estimate. These stem from Indepen's EV to RAV adjustment, and Ofgem's use of current snapshot gearing levels against historical equity beta observations.**
- **When adjusted for these issues, the resultant equity beta would be in closer alignment to the positions previously determined for RIIO-GD1**
- **When substituting the corrected equity beta's into the CAPM calculation, the cost of equity would be more than 1% higher than Ofgem's quoted range.**

FQ12. Do you have any views on our assessment of the issues that stakeholders raised regarding beta estimation, including the consideration of: all UK outturn data, different data frequencies, long-run sample periods, advanced econometric techniques, de-gearing and re-gearing, and the focus on UK companies?

We do not consider that Ofgem has adequately addressed the views raised by stakeholders regarding beta estimation in all areas, particularly in relation to the use of UK only comparator data. We consider that the Dr Robertson report provides useful guidance on the appropriate combination of statistic models, time horizons and frequency intervals. Whilst the topic of gearing has been addressed, we do not fully agree with Ofgem's ultimate conclusions and methodology. To avoid unnecessary duplication, these points are expanded in our answers to FQ13 to FQ15 below.

We would like to specifically address the Citizen's Advice assertion that the notional equity beta cannot be higher than observed beta's within our response to this question. We believe that this is a conceptually flawed argument, and summarise our position on this as follows:

1. The UK comparator organisations used in beta analysis are proxies for non-listed companies. In practice, traditional beta estimates are dominated by water companies. To limit notional equity beta to raw observed values would be to assume that the risk profile is the same as the average for the comparator data set, which is not likely to be the case
2. Observed raw equity betas reflect the financial structures of the companies being observed, and gearing levels for comparator companies will be different to the non-listed companies that Ofgem is determining a beta value for. This underlines the importance of the notional gearing assumption to be a sensible proxy for sector level gearing.
3. It is a point of fact that risk to equity holders increases with the level of gearing. This is because debt holders have a priority claim over equity in the event of financial distress.
4. Whilst it is true that de-gearing at a lower level than notional has the effect of increasing the equity beta, the reverse would also be true if the actual gearing was higher than notional.
5. To overly focus on the equity beta component of the cost of equity is to forget the role of gearing in the notional Weighted Average Cost of Capital. Ofgem will seek a WACC minimising level of gearing. Whilst gearing pushes equity beta, and cost of equity up, the weighting to (lower cost) debt is increased in the WACC, maintaining some parity in the overall proposition.

FQ13. What is your view on Dr Robertson's report?

We consider that Dr Robertson's report is useful to help understand the relative merits of different approaches to the beta assessment (both the statistical model used, and the appropriate data frequency). Therefore the recommendations as to how to best interpret data using the most appropriate model, depending on the usage of the output are helpful to inform the objective assessment of the cost of capital.

We believe that the conclusions broadly support those of the NERA report submitted by Cadent[15] in its response to the earlier consultation which, in summary concluded that use of GARCH modelling techniques as opposed to traditional OLS approach does not, in itself, support a lower range but that the choice of data and frequency of data is more significant. This deals with the UKRN and following CAB recommendations that GARCH models be fully explored.

Cadent continues to support the selection of more recent high frequency data as set out by NERA given the structural breaks issue acknowledged in Dr Robertson's report (and argued by NERA).. See conclusion Recommendation point 10, *"There is still the possibility of structural change. This suggests that using a rolling window may still be sensible."*

Cadent disputes the reliance on UK water companies as the best proxy for regulated energy networks and refers Ofgem again to the National Grid plc data suitably adjusted for the non UK business as set out in detail in the NERA report submitted previously. This concluded an appropriate Asset Beta range of 0.43 to 0.47 for UK energy networks such as Cadent. The low end of this informs our response to FQ15 below.

FQ14. What is your view on Indepen's report?

We strongly disagree with Indepen's introduction of a new concept for adjusting for variances between enterprise value (EV) and RAV when de-gearing and re-gearing beta for the notional organisation. We summarise our views as follows:

1. This represents a departure from the accepted convention for de-gearing and re-gearing observed equity betas[16]. The conventional approach is supported by Burns in the UKRN report[17], NERA[18] and Oxera[19]
2. Basing the forward looking equity beta on a historical enterprise value to RAV relationship assumes that this relationship will hold for the duration of the next price control
3. For the case in point employed by Ofgem which assumes an EV to RAV ratio of 1.1, that all networks will be operating at a premium to RAV of this level throughout the price control - Ofgem's proposed tightening of the price control, reduced outperformance potential, increased downside risk and return adjustment mechanisms would bring this into question.
4. If we were to accept Indepen's logic (which we do not), the assumed EV to RAV ratio is based on two of the water companies, and no attempt has been made to assess this for the other three companies included in the comparator data set (whilst this is problematic, it would be not insurmountable to create an estimated relevant EV based on the percentage contribution of UK regulatory activities to the total organisation)

[15] NERA (2018): Estimating Beta Risk at RIIO GD-2
[16] $\beta_a = \beta_e \,.\, (1 - g_A) + \beta_d \,.\, g_A$, and $\beta_N = (\beta_a - \beta_d \,.\, g_N) / (1 - g_N)$, where β_e = observed equity beta, β_a = derived asset beta, g_A= actual historical gearing, β_d = debt beta, β_N= notional equity beta, and g_N= notional gearing
[17] UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, Appendix F
[18] NERA (2018): Estimating Beta Risk at RIIO GD-2, p28
[19] Oxera (2019): Review of RIIO-2 finance issues: The estimation of beta and gearing

5. Notwithstanding point 2, and further to point 4, the EV for the two companies used is based on a snap shot on a particular day. If anything, the average position over the time horizon of the beta data set should be used.
6. Ofgem are separately proposing to align the CAPM based cost of equity to expected return. Adjusting gearing to reflect a market to asset ratio of 1.1 as proposed is both duplicative to, and inconsistent with, the proposed expected return wedge.

Where Indepen recommends that regulators use judgement in interpreting the effect of de-gearing and re-gearing observed equity betas, it is important that this judgement is applied consistently with the time horizon of the data being utilised, for instance, where a time period of five years has been used, the average gearing over that period should be used to de-gear (as opposed to a spot level as used in Ofgem's approach).

We disagree with Indepen's stance on the use of international comparator data. We consider that appropriately selected international comparator data must be preferable to solely analysing UK comparators, as this provides a broader and more statistically robust data set to examine. We consider that controlling for the differences documented in the report is not insurmountable. As a minimum, the analysis could be undertaken alongside UK data to help inform trends, and to take a broader perspective. In other aspects of the cost of capital appraisal, Ofgem has been keen to utilise real world cross checks. We believe international comparator data could help provide such evidence, and should not be ignored simply on the grounds of complexity or difficulty.

Indepen recommend a time horizon of five to ten years for assessing observed betas. Whilst our preference remains for the shorter five year period, we can accept this time horizon provided that significant structural breaks (for example, the financial crisis and Brexit) are demonstrably taken into account, and that an appropriate combination of statistical model and data series is employed in line with the Robertson recommendations. We note that Ofgem has included both a 10 year and 5 year time horizon in its current beta assessment, but it is unclear the extent to which it has controlled for the presence of structural breaks in its range.

We agree with the principle that debt betas should be used when de-gearing and re-gearing observed raw equity betas, particularly where there is a material difference between the actual gearing of comparator companies and notional gearing. The appropriate level of debt beta to use in this circumstance is less clear.

We agree that the decomposition of beta estimates for organisations with substantial overseas and/or non-regulated interests is both appropriate, and achievable. Indeed NERA undertook such analysis on National Grid as part of its 2018 report to support Cadent's response to the RIIO-2 framework consultation[20].

FQ15. What is your view of the proposed Ofgem approach with respect to beta?

NERA's previous point regarding time horizon for observed beta analysis was that for a relatively short forward looking period of five years, the most recent history is likely to give a more representative view as it reflects the prevailing level of risks faced by organisations heading into the next price control period[21].

Whilst using a longer time horizon may inform trends where betas evolve over time, we seek to avoid undue weighting on longer range history, particularly where this may be skewed by structural breaks. This point is to be reinforced by Oxera in their 2019 report for the ENA.[22]

[20] NERA (2018): Estimating Beta Risk at RIIO GD-2, p13
[21] NERA (2018): Estimating Beta Risk at RIIO GD-2, p10
[22] Oxera (2019): Review of RIIO-2 finance issues: The estimation of beta and gearing

Ofgem has stated that it agrees that consideration of international comparator data may be worthwhile, but has not yet provided any clear view on how it intends to address this in its proposed methodology. We note that Burns included international comparator data in the beta analysis included in the 2018 UKRN report[23], and although the additional adjustment requirements are noted, CEPA recognise that international data would increase the breadth of the data set[24]. The use of international comparators has also been recommended by NERA[25] and Oxera in 2018[26] and again in 2019[27].

As part of the Sector Specific decision, we request that Ofgem confirms the extent to which international comparator data will be taken into account in its beta assessment methodology for the purposes of final determination.

We support robust statistical analysis of observed beta data, and accept that a combination approach may provide a more informed view given the "noise vs signal" challenges in the data. However, it is not fully clear how Ofgem has controlled for structural breaks in the longer term time horizon.

We do not agree with the determination of notional equity beta included in Table 12 of the Finance Annex, for the following reasons:

1. A snapshot of gearing for the comparator companies appears to have been used instead of the average positions over the time horizon of the beta assessment (5 to 10 years)
2. We do not agree with Indepen's approach for adjusting notional gearing for the ratio of enterprise value to RAV (please see our response to question FQ14)
3. Although we do not agree with the approach in any form, Ofgem appears to have adjusted actual gearing for the EV to RAV ratio, rather than notional gearing as proposed by Indepen

In the analysis below, we have recreated Ofgem's Table 12 for four scenarios:

1. Ofgem's published position, unadjusted
2. Correction for the EV/RAV adjustment to actual gearing rather than notional
3. Restated 2 on the basis of the average gearing for the 5 comparator companies over the 10 (low case) and 5 (high case) time horizons per the information provided in the Indepen report[28]
4. Restated 3 on the basis of the conventional approach to de-gearing and re-gearing

For the purposes of the analysis, we have retained Ofgem's stated ranges for raw equity betas, debt betas and notional gearing, and this should not be construed as acceptance of any of these variables.

[23] UKRN (2018): Estimating the cost of capital for implementation of price controls by UK Regulators, Appendix F
[24] CEPA (2018): Review of Cost of Capital Ranges for Ofgem's RIIO-2 for Onshore networks, p51
[25] NERA (2018): Estimating Beta Risk at RIIO GD-2, p26
[26] Oxera (2018): The cost of equity for RIIO-2, p36
[27] Oxera (2019): Review of RIIO-2 finance issues: The estimation of beta and gearing
[28] Indepen (2018): Beta study – RIIO-2, Appendix F

Table F4: Revised equity beta calculations after gearing corrections

	1. OFGEM		2. EV / RAV ADJ (INDEPEN)		3. AVG HISTORICAL GEARING		4. CONVENTIONAL APPROACH	
	LOW	HIGH	LOW	HIGH	LOW	HIGH	LOW	HIGH
Raw equity beta	0.6	0.7	0.6	0.7	0.6	0.7	0.6	0.7
Historical gearing	50.8%	50.8%	50.8%	50.8%	39.9%	44.2%	39.9%	44.2%
EV / RAV adjustment	1.1	1.1	1.1	1.1	1.1	1.1	1.0	1.0
Adjusted historical gearing	55.9%	55.9%	50.8%	50.8%	39.9%	44.2%	39.9%	44.2%
Debt beta	0.15	0.10	0.15	0.10	0.15	0.10	0.15	0.10
Asset beta	0.35	0.36	0.37	0.40	0.42	0.43	0.42	0.43
Notional gearing	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%	60.0%
Adjusted notional gearing	60.0%	60.0%	54.5%	54.5%	54.5%	54.5%	60.0%	60.0%
Notional equity beta	**0.65**	**0.76**	**0.64**	**0.75**	**0.74**	**0.84**	**0.83**	**0.94**

This shows that when correcting the Indepen approach for the average gearing over the beta assessment time horizon the resultant notional equity betas are higher than Ofgem's published range. When taking the conventional approach to de-gearing and re-gearing, the resultant notional betas are higher still and closely aligned to the positons included in the RIIO-GD1 settlement.

When substituting scenarios 3 and 4 from the table above into the CAPM calculation, leaving the other parameters unchanged, the revised cost of equity estimates would be as follows:

Table F5: Impact of revised equity beta on allowed cost of equity

	OFGEM		AVG HISTORICAL GEARING		CONVENTIONAL APPROACH	
	LOW	HIGH	LOW	HIGH	LOW	HIGH
TOTAL MARKET RETURN	6.25%	6.75%	6.25%	6.75%	6.25%	6.75%
RISK FREE RATE	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)	(0.69%)
EQUITY RISK PREMIUM	6.94%	7.44%	6.94%	7.44%	6.94%	7.44%
ASSET BETA	0.35	0.36	0.42	0.43	0.42	0.43
DEBT BETA	0.15	0.10	0.15	0.10	0.15	0.10
EQUITY BETA	0.65	0.76	0.74	0.84	0.83	0.94
COST OF EQUITY	**3.79%**	**4.98%**	**4.48%**	**5.53%**	**5.04%**	**6.28%**

Cross-checking the CAPM-implied Cost of Equity

- **Cross checks can play a role in validating and legitimising the allowed cost of equity, however, a balanced, relevant and reliable approach is required.**
- **We question the relevance and reliability of the cross check evidence provided, and consider that an adjustment to the range in step 2 is duplicative to the assessment of TMR, the proposed allowed vs expected adjustment, and the additional return limiting measures that Ofgem intend to implement.**
- **Oxera has provided compelling evidence of a CAPM calibration cross check that draws on debt market evidence. This proposes the concept of a minimum wedge between the asset risk premium and the debt risk premium.**
- **KPMG have provided additional empirical evidence on required investor returns, looking at more comparable funds, and considering the importance of matching risk appetite to the capital needs of energy networks.**

FQ16. Do you agree with our proposal to cross-check CAPM in this way?

In principle, Cadent supports the use of cross checks to calibrate and legitimise the CAPM based cost of equity. We would stress though that it is absolutely vital that this is done in as objective and balanced way as possible so as not to introduce bias. Clearly, relevance and reliability are fundamental lynchpins of any cross check evidence. Great care must be taken when judging whether a particular piece of cross check evidence indicates a particular position on the CAPM range, as opposed to validation of the range itself.

We address Ofgem's sources of cross check evidence in turn, and provide our key points of feedback. These are supported by a report by KPMG commissioned by Cadent which is provided in the annex to our consultation response[29].

Market to Asset Ratios

1. There is no discernible trend in the graph provided in Figure 11 of the consultation document. The range is somewhere in the region of -11% to +26% and very volatile. The graph only covers the water sector, so it would be useful to see other network companies, accepting that adjustment for non-regulated and/or non-UK activities would have to be made. It is interesting that the 3 companies follow a similar pattern, most likely the result of similarity of risk profile, and belonging to the same regulatory regime. It is worthy of note that the 3 companies shown on the graph were also the higher performing water companies, so this may not appropriately reflect the sector overall.
2. The MARs are influenced by a number of factors, including: the point in the regulatory cycle, debt structure above the regulated entity, opportunity to earn a return if the company performs better than peers. To pick one element, higher than notional gearing structurally above the regulated entity is one of the biggest components of MARs, and reflects the expected remuneration for taking a higher risk that the investors are prepared to accept. Additionally, European utility stocks represent an attractive prospective for overseas investment funds for political factors rather than pure financial.
3. A number of observations arise from taking private sale transaction premia. Firstly, they reflect a snapshot in time, and as such one might question their forward looking power, particularly at a time when Ofgem is reducing upside performance potential and increasing downside risk. Secondly, premia will reflect an expectation of outperformance against the prevailing and future regimes, and

[29] KPMG (2019): Cost of Equity and the RIIO-2 Consultation

given the difficulty in predicting regulatory shocks, such valuations often assume regulatory stability and predictability. Thus, bid premia reflect a judgement and an appetite for risk in a competitive bid environment, neither of which are a guarantee of future performance. Thirdly, the timing of the transaction relative to the start and end of a price control must be taken into account, and how much of the premia is associated with current (and more predictable) performance from an existing regime, versus that attached to a less certain future must be considered. Another important consideration is leverage which is structurally above the regulated entity level, being one of the bigger drivers of transaction premia, usually by far exceeding the expected outperformance.

4. If Ofgem considers that the degree of observed premia is driven by systematic outperformance and information asymmetry, then making an adjustment to the CAPM range in step 2 would be a double count of the proposed Allowed vs Expected adjustment, and the variety of additional protective mechanism being proposed (RAMs, sculpted sharing, increased uncertainty mechanisms, narrowed incentive performance range, etc.). We must therefore question how many times Ofgem are actually adjusting for the same factors.

Forecasts from Investment Managers and Advisers

We have provided our views of this evidence in our response to the TMR questions, and see this as a very weak source of cross check evidence. Furthermore, if using this to inform the TMR range and to narrow the CAPM cost of equity range, this is double counting, or as a minimum, overriding the weight attached to other evidence in the TMR calibration.

In their report for Cadent[30], KPMG make a number of points regarding the information presented in Table 10 of the Finance Annex:

1. A number of different methodologies have been employed in order to derive the TMR value which are not directly comparable with each other, and some are naturally more or less conservative than others. Taking views for diversified portfolios is not directly comparable to a single asset.
2. There are inconsistencies in the source data, including time horizon, geography, and depth of underlying assets.
3. With regard to data interpretation, a number of the values are actually presented as a range (in some cases a very wide range) in the source documents, but are included as a point estimate in the table.
4. The use of a mean average, as opposed to a median, is distorted by outliers.
5. KPMG conclude that the lack of information, consistency and clarity across the data provided limits the reader's ability assess whether the Ofgem' has appropriately considered all relevant factors while arriving at a single figure estimate, such as whether there is a possibility of selection bias or whether there is consistency of what is being measured or reported across data sources.

[30] KPMG (2019): Cost of Equity and the RIIO-2 Consultation

OFTOs

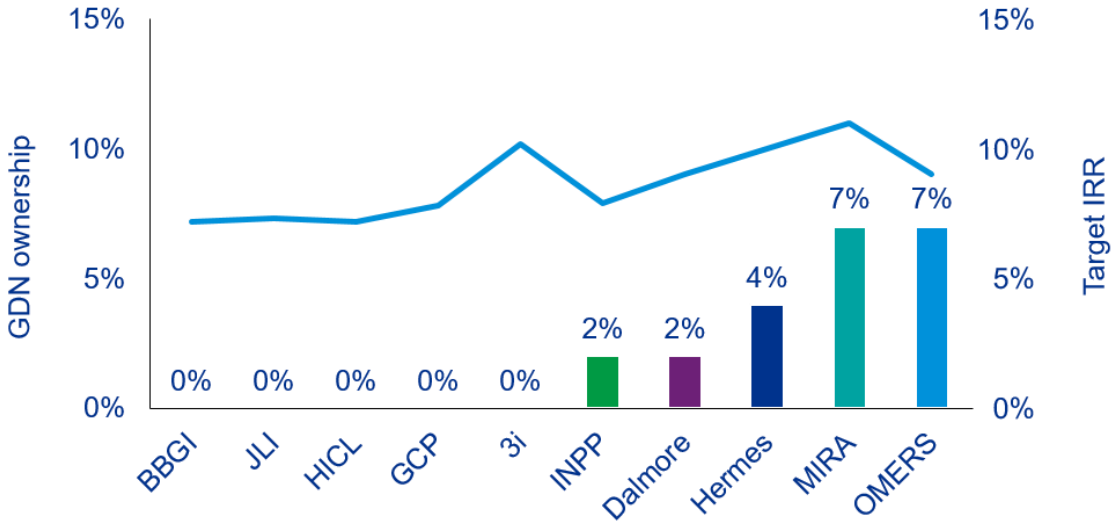
We question the relevance of bid based IRRs where both the risk profile and revenue horizon are so markedly different to that of networks. One would naturally expect OFTOs to have lower IRRs. When the differences are so apparent, it is illogical for Ofgem to propose that this evidence supports the lower end of the CAPM range for an entirely different asset type. If this is to be used as cross check evidence, it should carry some form of upward adjustment to recognise these differences. Some of the key features of OFTOs include: 20-year fixed revenue formula and WACC parameters (as opposed to regular resets for GDNs), simple and single asset, little cost variability, with the main cost item being insurance.

Additionally, it appears that Ofgem is conflating the base cost of capital with outperformance potential, which for the networks should be driven by the incentivisation regime, so we do not see the comparison to network outperformance potential as relevant in any way.

Infrastructure fund discount rates

In table 15 of the Finance Annex, Ofgem presents the discount rates of six London listed closed end funds, which Ofgem uses to cross check against a lower cost of capital. KPMG provide a useful review of the funds selected, demonstrating the incomparability of the risk profiles of the underlying assets to those of network companies, and in particular noting the dominance of PPP / PFI investments in the data set, which have lower construction and financial risk exposure. [31]

KPMG also provide an illustrative analysis of merit order of funds based on actual GDN ownership, which shows a correlation between ownership of regulated network assets and target IRR, driven by differing risk profiles. It also crucially shows that the funds selected by Ofgem in the Finance Annex are not representative of the ownership of GDNs.



Note: The proportion of GDN ownership is calculated based on the Based on 2016/17 RIIO GD-1 Annual Report

FQ17. Do you agree that the cross-checks support the CAPM-implied range and lend support that the range can be narrowed to 4-5% on a CPIH basis?

We consider that the quoted CAPM range is too low a result of miscalibrated TMR and equity beta assessments. On the grounds of relevance, reliability, and double counting, we do not agree that this cross check evidence supports a narrowing of the quoted range.

[31] KPMG (2019): Cost of Equity and the RIIO-2 Consultation

FQ18. Are there other cross-checks that we should consider? If so, do you have a proposed approach?

Asset Risk Premium vs Debt Risk Premium

In their draft report for the ENA, Oxera provide compelling evidence on a developing concept for an additional cost of capital cross check that draws on evidence from debt markets to ensure that allowed returns are calibrated at a level commensurate with the risk associated with operating and owning network assets.[32]

Oxera examine the extent to which the asset risk premium[33] should exceed than the debt risk premium[34] to ensure that equity returns are appropriately calibrated against debt returns. This approach provides a useful ready reckoner to the cost of capital calibration.

The value of this approach is that it provides an acid test at the cost of equity level, and provides an indication of how well the individual CAPM components have been calibrated when taken together. We consider this a very useful, objective and evidence based cross check that could be applied. Instead of asserting a failing in any particular CAPM component, it instead encourages a step-back review, and through processes of elimination and iteration, fine tunes the cost of equity estimate.

For instance, it is probably fair to accept that the risk-free rate is the most objectively assessed component of the CAPM calculation, with further objectivity potentially afforded by the proposed indexation of this component. If on this basis, we can rule this out as a source of judgemental error, we can then reassess the TMR and equity beta components and take a view on to what degree calibration judgements are impacting any observed asset risk premium vs debt risk premium disparity.

We anticipate that Oxera's report will be finalised and provided to Ofgem very shortly after the Sector Specific consultation close.

Alternative sources of empirical evidence

In their report for Cadent, KPMG provide useful additional cross check evidence based on the actual ownership structures of GDNs.[35]

As noted in our response to FQ16, we do not think that the infrastructure fund evidence provided by Ofgem is a reflection of the risk profile of the GDN sector. KPMG present alternative cross check evidence for a different set of comparator funds, more reflective of investment in and risk exposure to energy networks. Inclusion of these comparator funds increases the IRR range to 7% to 12% (notwitshstanding previous points in relation to averaging and taking a single point estimate).

KPMG also present further cross check evidence on funds without investment in GB energy networks, but with similar risk profiles, suggesting a further widening of the range at the upper end.

Having examined funds more comparable to investment in energy networks, KPMG then explore the risk / reward relationship for investment in the sector, approach to asset management, and investment horizons. Some compelling points arise from this:

1. Infrastructure and pension fund investors will generally fall between savings funds and PE funds in terms of the returns they expect, and their investment horizon more closely resembles that for regulated network companies.

[32] Oxera (2019): Review of RIIO-2 finance issues: Asset Risk Premium, debt risk premium and debt betas
[33] Taking terms from the nominal CAPM calculation, Asset beta x Equity Risk Premium
[34] Nominal cost of debt – Nominal Risk-Free Rate
[35] KPMG (2019): Cost of Equity and the RIIO-2 Consultation

2. Ownership of network companies may shift towards investors with lower risk appetite such as savings funds if the allowed return drops below the expectations of infrastructure and pension funds. This presents two major issues: firstly that the size and nature of such funds could mean that capital availability is insufficient to meet the needs of long-term projects in energy networks, and secondly, they may not have access to relevant resource and expertise to effectively manage network companies.
3. Given the above, Ofgem must consider whether the allowed return (and indeed scope for legitimate outperformance) is attractive to investors of the right risk appetite, investment horizon, capital availability and management expertise.

KPMG argue that a reduction in expected returns that is not matched with a sufficiently corresponding reduction to the risks faced by networks could have serious consequences that could be damaging to consumers. These include curtailment of discretionary investment to the detriment of government policy aims, reduced focus on improving service levels, and unwillingness to invest in innovation and tackle risks and challenges.

Expected and Allowed Return

- **We estimate that the proposed 50 basis point deduction is akin to an additional totex stretch target of 5% - 6% for the gas distribution sector.**
- **Given the number of new protective mechanisms proposed by Ofgem, and recent enhancements to regulatory reporting, any perceived information asymmetry is materially reduced.**
- **The proposed mechanism is duplicative to other proposed mechanisms, and is based on the historical outperformance of the energy and other sectors. It effectively implies that Ofgem admits that it is not able to recalibrate the framework to a neutral position.**

FQ19. Do you agree with our proposal to distinguish between allowed returns and expected returns as proposed in Step 3?

Our general view

Cadent strongly opposes this proposal, and suggest that Ofgem should reconsider this mechanism in the Sector Specific decision. It is duplicative to other proposed mechanisms (principally return adjustment mechanisms, totex incentive calibration and the EV to RAV adjustment in the equity beta determination), conceptually flawed and arbitrary in nature.

It is noteworthy that Ofgem has set the baseline cost of capital lower than its mid-point estimate of the CAPM based cost of equity, which appears to be a significant departure from regulatory precedent and without reference to or challenge to the view that the interests of consumers are better served by "aiming up" (which we believe to be widely accepted by academics, regulators and the CMA). Indeed, with the introduction of the performance wedge Ofgem is "aiming down". We do not consider that this is appropriate, given the inevitable scope for error in determining even today's cost of equity and the high chance that the outturn cost of equity over the price control period moves away from the ex ante level. It is even less appropriate in the current situation of a very large reduction in the cost of equity in other respects.

We support the views of Frontier Economics in their review of the Allowed vs Expected adjustment for the ENA workgroup (summarised later in this response).

The wedge as an equivalent totex stretch target

Setting an upfront performance wedge is akin to setting an additional stretch efficiency or output incentive target, as networks will be required to deliver cost reductions way beyond the efficiency frontier established in business plan cost assessment, or drive additional customer value through outputs in order to achieve a level of return equivalent to the mid-point cost of equity. It is analogous to competing in a 1000 metre race with a 100 metre handicap.

We estimate that for the Gas Distribution sector, the proposed 0.5% deduction is equivalent to round 5% - 6% of additional totex outperformance (based on a mid-point sharing factor of 32.5% of Ofgem's proposed 15% to 50% range). The upfront wedge represents a front end expectation on Ofgem's part that all GDNs networks will outperform totex allowances to this extent, or achieve the equivalent in output incentives. This judgement is made before business plans have been assessed, or the framework calibrated.

A skewed perception of information asymmetry

In the 2018 UKRN report, the authors reference information asymmetry as a major cause of discrepancy between allowed and actual returns. This may be true to a certain extent, but the possibility of achieving a certain level of outperformance which can then be shared with customers is desirable and in their long term interests.

We consider that information asymmetry must reduce over time within an incentive based framework. With each iteration of the price control, the efficiency frontier is lowered, with networks needing to respond positively if outperformance is to be achieved.

We are supportive of practical new measures that Ofgem is putting in place that will help to reduce information asymmetry, such as price control deliverables, dynamic output targets, indexation and increased use of uncertainy mechanisms and revenue drivers. It is not clear the extent to which Ofgem has taken the operation of these into account in its appraisal of the performance wedge.

We note that Ofgem has continued to raise the bar with information provision and performance transparency. In addition to the developments in regulatory reporting for the RIIO-1 price control, Ofgem has recently implemented both the Strategic Performance Overview (SPO) and Regulatory Financial Performance Report (RFPR). Whilst the cost of regulatory reporting to the industry is not insignificant, Cadent fully supports Ofgem in such initiatives, and we see information provision as a vitally important aspect of effective regulation. However, if these initiatives are not alleviating the perceived information asymmetry their effectiveness must naturally be reviewed.

Crucially, we consider that Ofgem is not recognising that information asymmetry can occur bidirectionally, as as been observed in previous price controls where cost allowances have been set materially too low.

We consider that Ofgem is making positive and practical steps to reduce information asymmetry in a number of areas, and to make a prospective judgment based on history (without any proposed subsequent revision), that these will not be effective, is unfounded. As highlighted in the Frontier Economics report, the distribution of returns in the water sector, which have been less skewed towards investors, indicates that frameworks can be calibrated with the right balance between investor and customer benefits.

Legitimate outperformance is good for consumers

We do not believe that Ofgem is sufficiently recognising the customer benefits of incentivisation and legitimate outperformance in its consultation. Whilst we are supportive of measures that eliminate windfall gains and losses and reduce forecasting error, with the allowed versus expected return adjustment, Ofgem appears to be looking for an additional safety mechanism that would not be required for a well calibrated framework.

It is important to note that Ofgem is already signalling a 3% real reduction in the cost of equity through its proposals, in addition to limiting incentive performance potential, increasing downside risk, and introducing additional measures such as tighter output parameters through price control deliverables, additional licence obligations relating to minimum service levels, greater use of uncertainty mechanisms and indexation, dynamic target setting, and return adjustment mechanisms. Combined with the expected return performance wedge, Ofgem is driving a risk averse, low ambition response from networks, the very opposite of what incentive based regulation is designed to achieve. This would ultimately be to the disadvantage of consumers because networks will not have the impetus to take risks, to innovate and to drive efficiency and value adding customer outcomes. There is also a potential impact to delivery momentum which could lead to loss of procurement economy and efficiency, again to the detriment of long term customer value.

Pre-judging outcomes based on history prior to calibration of the framework

Ofgem argues that "on the balance of probabilities, investor expectations will be, at the very least, marginally positive, and that company capabilities are suitably adequate to fulfil such expectations"[36]. It is difficult to understand how this conclusion could be drawn before the framework is calibrated, or indeed in the light of the combined effect of the proposals contained within the consultation document. Attaching a value to the wedge before calibration of the framework, or indeed before the basis upon which performance will be measured has been agreed (RORE definition), makes it an entirely arbitrary adjustment.

We consider that 0.5% reduction in the cost of equity is far from marginal. As noted previously this could represent up to 6% of additional totex performance requirement in RIIO-2 for the gas distribution sector.

Ofgem justifies what it sees as a small adjustment by comparing it to the 200-300 basis point outperformance observed in RIIO-1. We see this comparison as entirely irrelevant. Network performance in RIIO-1 is expected to land well inside Ofgem's previously quoted expected performance range, and the level of achieved performance is a direct consequence of how the price control was calibrated[37].

Setting an outperformance wedge at the outset raises a number of important points regarding the manner in which returns materialise:

1. The final outcome at industry, sector or company level cannot be predicted from the outset
2. If the framework is calibrated correctly, there will be a spread of outcomes across network organisations – the performance wedge is applied equally to all organisations.
3. Returns do not accrue linearly across the price control. Where networks progressively respond to incentive mechanisms, this will tend to drive a growing profile. The emergence of risks during the price control period may impact networks favourably or adversely, and the timing and impact of this cannot be anticipated at the front end.
4. The nature of how returns are allocated between customers and shareholders varies. Current output incentive mechanisms result in within price control rewards (notwithstanding the fact that reward to networks is lagged by two years). The totex incentive mechanism allocates reward between the present and the future on account of capitalisation rates.
5. Accepting that outperformance on day one of the price control should be zero if the framework is correctly calibrated; the level of outperformance accruing over time should be seen as a positive signal to customers.
6. A blanket 0.5% deduction represents a different level of challenge to network organisations, as it will translate to a different level of totex stretch across sectors. Even on a within-sector basis, it cannot be assumed that outperformance capacity is the same across all companies, as the playing field is not necessarily level from the outset. Furthermore the level of challenge this represents at company level will be influence by the highly subjective business plan assessment, and where sharing factors land at a network level.

[36] Ofgem (2018): RIIO-2 Sector Specific Methodology Annex: Finance, p52
[37] Ofgem (2012): RIIO-GD1: Final Proposals – Overview, p38

7. Whilst Ofgem have signalled some upper and lower bounds of +/- 3% RORE within regard to how proposed return adjustment and cash flow floor mechanisms might operate, it has also noted that it does "not anticipate them being employed if the price control operates as expected within a relatively generous margin of error"[38]. Whilst it is unclear what the specific definition of RORE to be employed is at this stage, this statement does indicate that the expected average performance range must be some way off the 3% cap. It is therefore not obvious that a net 0.5% outperformance position is achievable.

Ofgem's supporting analysis to the allowed vs expected return adjustment is based solely on backwards looking evidence. We fail to see the relevance of this when looking forwards to a new recalibrated framework which (rightly) looks to systematically remove sources of windfall outperformance. Taking all things into consideration, the persistent reference to history gives the impression that this mechanism is as much about retrospective clawback of RIIO-1 performance as it is controlling RIIO-2 outcomes.

A review by Frontier Economics

In their report for the ENA, Frontier Economics draw similar conclusions to our own[39]. Some of the key conclusions of their report are:

1. That Ofgem has not taken account of regulatory and CMA precedent, supported by academic evidence, on the appropriateness of aiming up when setting the allowed cost of equity.
2. The outcome of forcing allocative efficiency with the adjustment is that productive and dynamic efficiency, the lynchpins of regulatory economics, are undermined.
3. That the evidence used by Ofgem to support the assertion of systematic informational advantage is based on the first generation of RIIO price controls, and that going further back in time provides evidence of where regulatory expenditure allowances have been set too low.
4. In applying the adjustment to the cost of equity, which is then applied to the RAV, Ofgem is essentially clawing back the value of past investments.
5. The adjustment is both material and variable by network and sector when expressed in terms of equivalent totex performance, with no justification as to whether this variability is reasonable, or indeed achievable in RIIO-2.
6. The deduction risks a double count of the return limiting effects of proposed new mechanisms (shorter price control period, price control deliverables, licence obligations, greater use of uncertainty mechanisms and indexation, dynamic target setting, and return adjustment mechanisms).
7. Ofgem risks unintended consequences on incentives. For example, investment is discouraged by virtue of the fact that the appraisal of projects would need to include an ability to at least outperform by the relative value of the adjustment.
8. Maintaining investor confidence is key in order to key the true cost of capital in the sector low in the long term. Any short term savings to consumers achieved from this approach would be more than offset by the consequential impacts of lost investor confidence and the reduced credit worthiness of the sector.

[38] Ofgem (2018): RIIO-2 Sector Specific Methodology, p121
[39] Frontier Economics (2019): Adjusting Baseline Returns for Anticipated Outperformance

We strongly believe that Ofgem should reconsider the merits of this approach, and remove the mechanism within the Sector Specific decision, instead looking to see how incentives (in particular, totex), return adjustment, and other proposed mechanisms could be best calibrated on a transparent and justifiable basis to deliver the protections it is looking to achieve, whilst maintaining the impetus for networks to innovate and drive efficiency.

FQ20. Does Appendix 4 accurately capture the reported outperformance of price controls?

We are uncertain why Ofgem would need to rely on the evidence of other parties, as we would expect its own records to be the most accurate reflection of performance in the energy sector. As we are unable to assure and validate third party evidence, we cannot comment on its appropriateness or accuracy.

The energy sector RORE performance is out of date referencing positions from 2016/17. Ofgem would have been in possession of updated RORE positions for the 2017/18 financial year at the time of writing the Sector Specific Consultation, so it is unclear why the latest available information has not been used.

When considering relevant energy sector performance, Ofgem is only looking at performance under the first generation of RIIO price controls. This is misleading as outperformance achieved will be a direct consequence of the calibration of those particular controls. Ofgem should look further back in time when appraising the degree of perceived systematic outperformance in the energy sector.

We note that the 2018 Regulatory Financial Performance Report (RFPR) submissions included an updated definition of RORE which included additional areas of underperformance within the operational RORE calculation. Ofgem therefore does not appear to have taken account of its latest methodological developments. The RFPR includes financing performance (debt and tax) as part of a broader RORE definition. This is a developing area which is fraught with measurement complexities. Conceptually, this information is useful for the calibration of the cost of debt index, and in establishing appropriate protective mechanisms in relation to tax allowances, but we do not see this as relevant in the context of the allowed vs expect performance wedge, otherwise this risks further double counting.

FQ21. Is there any other outperformance information that we should consider? We welcome information from stakeholders in light of any gaps or issues with the reported outperformance as per Appendix 4.

Notwithstanding previous comments in relation to the relevance of historical performance, Ofgem is assessing RIIO-1 performance on a forecast basis. There are three more performance years to be reported which might ultimately show a differing position. Additionally, it is not yet clear the extent to which RIIO-1 close-out mechanisms may change this view.

Financeability

- **We consider that the onus is on Ofgem to ensure that long term financial profile of the notional company is able to support stable and strong credit ratings, and that the framework requires sufficient headroom for networks to adequately absorb risk.**
- **It is important that Ofgem's approach to financeability assessment emulates how this is undertaken by rating agencies in the real world, and that a long term perspective is also taken.**
- **In principle, we agree with the practical steps networks can take to ensure financeability, but Ofgem must also consider the implications of reduced dividend to equity beta**
- **We provide some suggestion that Ofgem might consider to support the short term resilience of the RIIO-2 framework.**
- **We note the concern of credit rating agencies that the introduction of the proposed cash flow floor could undermine the long term credit quality of the sector.**

FQ22. What is your view on our proposed approach to assessing financeability? How should Ofgem approach quantitative and qualitative aspects of the financeability assessment? In your view, what are the relevant quantitative and qualitative aspects?

Cadent has previously responded stating that the onus is on the regulator to ensure the projected financial profile of the notional company is able to support stable, strong credit ratings.

They key judgement when designing the series of financeability tests is the debt profile of the notional company given the profile of reducing market rates over recent years. As Ofgem accepted in ED1, most network companies have a longer-term debt profile than the ten-year trailing average mechanism assumes.

Whilst noting other stakeholder's responses saying that the onus should fall on companies alone if the Financeability duty, as enshrined in law, is to be meaningful then it must act as a binding constraint on the regulators decisions when formulating the overall financial profile for a price review.

Companies will have the responsibility to test and affirm that within the framework set out by the regulator they are financeable but there has to be some constraint on the regulators' strategy decisions, otherwise at the extreme the regulator could set future cash flows with an acceptable present value but all of them being received in future price control periods.

Cadent considers that the range of quantitative and qualitative factors to consider are set by the markets and in relation to the debt markets then, unpalatable though this may be for Ofgem, the market standards are the credit rating agencies methodologies and ratios. Therefore Ofgem's proposed approach of testing the base plans and appropriate downside sensitivities against the three main rating agencies metrics is the correct one.

However, as Ofgem notes in paragraph 4.3 certain ratios measuring interest cover and debt serviceability, such as Adjusted Interest Cover / PMICR and FFO / Net Debt have a higher weighting in the agencies' methodologies for network companies and any consistent weakness within the Financeability tests needs to inform Ofgem's judgement on the overall WACC as this is effectively the market test that the regulator must respond to for monopoly businesses that are not allowed to set their own prices.

The impact of a switch to CPIH indexation (either on an immediate or transitioned basis) is effectively to accelerate cash flows from future periods. Additionally, financeability resolving options proposed by Ofgem (for example capitalisation rates and depreciation methodology) will have the same cash accelerating effect. Cash flow acceleration invariably means increases to customer bills in the immediate term. To ensure that decision is RIIO-GD2 do not create foreseeable downstream issues, it is important that both the customer bill profile and the financeability assessment are considered over the long term, our suggestion being 4 to 5 price controls ahead (based on effective economic asset lives).

Cadent also holds a strong view that the price control should be financeable without the cash enhancement measures, such as the switch to CPIH. Based on our understanding, Ofgem's December proposals would not be financeable for a notional company bringing cover ratios to 1.1x or less, in the absence of cash acceleration by way of a switch to CPIH. This in turn is a key issue and highlights how unsustainable the current proposals are with respect to allowing Ofgem to fulfil its financeability duty. Solving that with a cash flow floor is not a justifiable position as it would apply to companies that would be bound to fail the financeability under the latest proposals, hence creating and reinforcing a systematic risk.

FQ23. Do you agree with the possible measures companies could take for addressing financeability? Are there any additional measures we should consider?

The observed equity betas of organisations will reflect the fact that they pay an annual dividend. Therefore, any sector wide assessment that dividends will need to be reduced to below the allowed return needs to be considered against the impact on equity beta within the cost of equity. All the market data used to inform the appropriate level of return is based on a set of companies that pay a regular annual dividend.

Where equity injection is assumed, then the financeability of equity needs to be fully considered, and Ofgem's cross checks of the estimated CAPM needs to reflect the expected returns for the types of infrastructure funds providing private equity to the sector sufficient to attract new equity, in a similar way that a public listed company may have to offer a discounted rights issue.

Where an individual company's financial profile is materially different from the properly calibrated cost of debt assumptions then Cadent does recognise that there will be a case for equity injections or reduced dividends to strengthen its financial resilience.

As part of the business planning process we agree that it would make logical sense for companies to consider capitalisation rates in the context of long term financeability. In the short term, networks might also consider workload profiling within the boundaries of an acceptable level of delivery risk, and provided that this is without additional cost to customers. For example, lagged revenue impacts from RIIO-GD1 may afford some front end delivery profile, provided that customer bill profiles and actual company financeability conditions are met.

We do not consider adjustment of asset lives or depreciation methodology to be appropriate means of solving financeability issues. To do so would undermine the RIIO principles of depreciating on the basis of expected economic asset life, and the fair intergenerational allocation of costs. This point will become of greater relevance where new investment on gas networks to support decarbonisation.

With regard to measures that Ofgem should consider, as a general point it is vitally important that Ofgem tests the resilience of the framework for network risk exposure. It is true to say that reductions to the cost of capital coupled with curtailed incentive performance potential, limits the headroom that networks will have to absorb financial risk. Many of the new framework measure that Ofgem perceive as risk reducing are more targeted at short term customer protection. These can have consequences for short term network financeability that are driven by framework mechanics, rather than network performance. The key is to ensure that customers' interests are protected, whilst ensuring that the framework is sufficiently able to deal with risk and variability.

Some areas that we think that Ofgem could consider in this regard:

1. **Increased use of uncertainty mechanisms (UMs).** We agree in principle that these can serve to reduce forecasting error, and reduce the possibility of excess allowance allocation. However, they present two areas of risk for organisations. Firstly, in the absence of any initial allowance for activities subject to UMs, networks must fully bear the cost outlay prior to any revenue allowance being provided, creating cash risks. The extent to which UMs are utilised and the frequency and timing of determinations will also influence the degree of this risk. There is also a determination risk in that Ofgem may not fully allow all expenditure incurred. To minimise the timing element of risk, Ofgem, might consider the inclusion of reasonable forecasts for UM activities in initial allowance setting, subsequently adjusted through the determination processes. This is likely to minimise cash exposure risk whilst retaining the underlying benefits of the UM approach. Additionally, appropriate forecasting through Ofgem's RFPR process would help ensure that forecast performance is not distorted where there is a gap between actual expenditure and agreed allowances (for instance, by separately reporting cost forecasts, and accordingly adjusting forecast allowances on a "to be determined" basis)
2. **Indexation.** We agree that indexation founded on sound underpinning methodology can help remove forecasting error. Increased used of indexation however also increases revenue and customer bill volatility, particularly if opening revenues are based on flat or zero based profiles for indexed components. Indexation invariably involves some degree of lagged impact. Our recommendation is that initial cost and revenue allowances make provision for the forecast effect of indexation, and subsequently adjusted through the Annual Iteration Process.
3. **Pass through costs.** These are significant in value, representing around 30% of the annual GDN cost base. Traditional practice has been to set cost allowances on a flat basis, with any variance between actual costs and allowances trued up with 2 year lag (on an NPV neutral basis).

   In RIIO-GD1, we observed significant increases in business rates. We also observe variability in shrinkage costs as a result of gas prices, and in exit capacity costs due to changes in Gas Tranmission revenues and demand conditions. Narrower cash flow headroom resulting from lower returns will reduce the ability of networks to absorb such short term variability.

   Ofgem could consider implementing a mechanised recalibration of holistic pass through cost allowances as part of the Annual Iteration Process, subject to a materiality threshold. This should operate symmetrically to ensure that consumers are not disadvantaged in the short term if costs reduce, but that the liquidity positions of networks are protected in the event of increases to pass though costs. We think this could be helpful in avoiding temporary factors that could cause cash flow problems, but without affecting the overall level of costs ulitimately borne by customers.

FQ24. Do you agree with the objectives and principles set out for the design of a cash flow floor?

Our general view

Cadent considers that in designing the cashflow floor Ofgem is confusing liquidity with financeability.

The cashflow floor, if properly designed, could provide some fall back liquidity support for networks but Cadent's overriding concern is that any introduction of a cashflow floor will signal to long-term debt investors that this is the extent of Ofgem's Financeability duty and this will be a significant shift away from widely held expectations that the duty amounts to more than this.

We are strongly of the opinion that if a cash flow floor was triggered by a framework miscalibration as opposed to the actions or performance of a network, that this would amount to a failing in Ofgem's financeability duties.

We are also not clear that implementing the cash flow floor is consistent with the specific mechanism that Parliament has put in place – the special administration regime – to protect customers and ensure continuity of supply in the event of financial distress of energy network companies.

- In our view, the special administration regime remains appropriate because it does not remove incentives on capital providers to ensure that the companies are properly managed and it does not provide for consumers to bail out a poorly performing company.
- In contrast, the cash flow floor, by favouring debt over equity, changes the balance between debt and equity in the company and skews their interests and incentives. It reduces the chances of a well-managed company in distress achieving an efficient financial restructuring (by changing the incentives of debt providers) but increases the chances of consumers bailing out a poorly-managed company. It also increases the likelihood of there being poorly-managed companies because it reduces the incentives on debt-holders to scrutinise companies' performance.

Ofgem appears to recognise this risk of reduced incentives on debt providers to scrutinise companies by proposing to introduce increased regulatory scrutiny of a company in cash supported status. But such scrutiny can never be an effective replacement for the scrutiny of the market in the first place. There will also be many difficulties with such proposals, including how to ensure that an Ofgem-appointed director could comply with the requirements of company law and directors' duties.

The introduction of a cash flow floor would be a radical change in regulatory practice and is very different from the revenue floors used elsewhere (which reduce the risk of the companies as a whole as opposed to one type of capital provider). Whether such a mechanism was in the long-term interests of consumers and in accordance with best regulatory practice would need to be scrutinised thoroughly in the appropriate fora.

The views of rating agencies

Moody's notes its recent report:

> ***"Ultimately, the most significant effect of introducing the mechanism may be to allow Ofgem to avoid arbitrarily increasing the cost of equity to address any potential financeability concerns. If a mechanism is eventually devised that successfully removes the need for Ofgem to allow any headroom to financing costs, the credit quality of the sector is likely to be weakened."***[40]

[40] Moody's (2019): Credit quality likely to weaken in RIIO-GD2 regulatory period

Standard & Poor's recent report includes the following:

> ***"Furthermore, we note the requirement under U.K. regulated networks' operating license to maintain an investment-grade rating. Cash flow stress is generally associated with low-rated companies, and under our methodology, a company that experiences a liquidity shortfall cannot maintain an investment-grade rating. Given the requirement to maintain an investment-grade rating, we expect the regulator to intervene long before a network faces a liquidity shortfall. We therefore struggle to recognize the value of the cash flow floor mechanism and question whether the introduction of the mechanism signals the regulator's willingness to allow credit quality in the industry to decline."***[41]

And finally, Fitch make the following statement:

> ***"In Fitch's view, the benefit of this mechanism in its proposed form is limited for companies with investment-grade ratings. Firstly, liquidity is rarely a core concern at investment grade, as we would generally expect liquidity concerns to arise towards the low 'B' rating territory. Good liquidity is a necessary but not sufficient feature for a company to have investment grade rating. In the most likely scenario, the liquidity support and dividend lock-up would come into force after a network migrates to speculative grade and its license is either revoked or questioned.***
>
> ***Secondly, the cashflow floor appears to merely buy time rather than address the underlying issue causing the liquidity emergency in the first place. It would work well if the issue was caused by a major one-off event or something that could be controlled by management within a short period of time. However, its benefit would be limited if there was persistent operating or financial underperformance due to factors outside of management's control (eg extremely ambitious performance targets in combination with low totex allowances or onerous inherited swap portfolio).***
>
> ***Finally, the cost of liquidity support is high and could on its own put more pressure on a network's financial profile."***[42]

KPMG Review

In a report for the ENA, KPMG have reviewed the proposed cash flow floor mechanism[43]. Some of the key conclusions of the report are:

1. The summary view is that the cash flow floor represents the creation of a new contingent claim on networks. Consumers provide conditional funding for companies in financial difficulty to protect debt financing, subsequently repaid by equity.
2. There are no apparent market failures that justify the mechanism, or that it is required to remedy, and is more a response to the degree of proposed allowed equity reduction.
3. The requirement for the mechanism above existing protective mechanisms has not been justified, and it is unclear whether the proposed mechanism could reduce the likelihood of financial difficulty or ensure the most efficient financial restructuring of companies in the event of difficulties.
4. The floor should emulate the outcome that would result in a competitive market, which does not appear to be the case.
5. The mechanism is more targeted at resolving liquidity issues rather than supporting the long term financial viability of companies.
6. If there are underlying factors that mean networks cannot maintain an investment grade credit rating, then the acceleration of cash from future periods would not address these.

[41] Standard & Poor (2019): Ofgem's Proposed RIIO-2 Regulatory Framework Will Test U.K. Energy Networks
[42] Fitch Ratings (2019): Ofgem's Credit-Enhancing Mechanisms Unlikely to Benefit Ratings
[43] KPMG (2019): Assessment of Ofgem's Cashflow Floor Proposals

7. As the cash flow floor seeks to protect debt holders but not equity, it has the effect of transferring risk between types of capital provider, without compensation to the latter.
8. The introduction of the floor creates significant additional complexity, with potentially distorting outcomes, and additional costs that have not yet been considered.

FQ25. Do you support our inclusion of and focus on Variant 3 of the cashflow floor as most likely to meet the main objectives?

For the reasons set out in response to FQ24 Cadent considers that the potential marginal benefit of signalling a contingency liquidity facility is overwhelming outweighed by the strongly negative sentiment signalled by any shift away from widely held interpretation of the regulators' duties.

In setting the concepts of the Regulatory Asset Value, regulatory capitalisation and assumed notional gearing levels to debt fund a large proportion of long-term asset investment for the long-term benefit of consumers, Ofgem is dependent upon the debt capital markets to fund these requirements.

Based on the language used in this and previous price control publications around "strong credit ratings" Ofgem must accept that the expectation of these providers of capital that span multiple price reviews is that the market derived measures of Financeability (i.e. the ability to raise long-term debt not simply meet interest costs as they fall due) need to be sustained for the long-term benefit of consumers.

A regulator that, responding to political pressures and short term market conditions, acts to erode the confidence and expectation of the debt capital markets will not be thanked by future generations of consumers for whom the cost of capital will have been permanently increased.

Corporation Tax

- **We are not convinced at this stage that a mandated Fair Tax Mark accreditation would offer any additional protection or legitimisation of tax paid, when HMRC remains the authority on this, nor would it be consequential to customer bill levels.**
- **The current regime includes protective mechanisms that ensure that tax allowances track to changes in corporation tax rates, accounting treatment changes, and changes to the interpretation of legislation**
- **The existing tax clawback mechanism allows for instances where actual gearing inside the regulatory ring-fence is higher than the notional level, resulting in higher interest costs, and lower tax charges. This remains an appropriate consumer protecting mechanism.**
- **We believe that enhancements to the PCFM and RFPR can help improve and assure the calculation of notional tax allowances.**

FQ26. Do you support our proposal that companies should seek to obtain the "Fair Tax Mark" certification?

We do not believe that the Fair Tax Mark delivers legitimacy to companies' tax positions.

Cadent recognises how the "Fair Tax Mark" might be appealing to Ofgem, but do not see this as a panacea to the key points of transparency and legitimacy that are being sought. As Ofgem have already noted, being a non-UK owned company, Cadent cannot currently apply for the mark.

In the event that that the scheme is opened up to non-UK owned companies, we are not at this stage convinced of the merits of Ofgem mandating accreditation (as opposed to networks applying for accreditation on a voluntary basis).

In particular, the Fair Tax Mark is a privately run accreditation scheme, and the mark does not represent endorsement by HMRC, who remain the authority on whether the right amount of tax has been paid in accordance with tax legislation. For that reason, achieving the mark would not have a beneficial impact on customers' bills. The time, effort and expenditure involved with applying for, and achieving accreditation should also be considered in the light of what it would achieve. Furthermore, what is "fair" tax is likely to be highly subjective, and could result in some companies not achieving accreditation even if they have paid the correct level of taxes in accordance with tax legislation.

Finally, we note that take-up of the scheme is currently very limited (accrediting less than 50 organisations in almost 5 years), mainly by small companies and co-operatives. This may underline how useful the mark is percieved by the wider business community as a whole. Only two utility companies have achieved certification to date.

FQ27. Is there another method to secure tax legitimacy other than the "Fair Tax Mark" certification? Could we build upon the Finance Acts (2016 and 2009) with regards to the requirement for companies to publish a tax strategy and appoint a Senior Accounting Officer?

We believe that HMRC should be trusted to apply UK tax rules and agree companies' tax positions.

Increased public scrutiny and the drive by HMRC in recent years towards tax transparency and enhanced visibility over tax governance for large businesses has resulted in far more clarity than ever before on companies' tax positions in statutory accounts and other documents, such as published tax strategies. Cadent very much supports these initiatives.

Our tax strategy, published in accordance with HMRC rules under Finance Act 2016, is available on our website and our Senior Accounting Officer provides certification to HMRC on an annual basis under the Senior Accounting Officer legislation. We believe that increasing transparency will be a continuing trend, and that the legislation Ofgem refers to above will be refined and improved by HMRC in due course. In addition, a plethora of anti-avoidance rules and tax disclosure regimes have brought an end to more aggressive tax avoidance schemes.

UK tax rules are complex and, notwithstanding the government's stated aim of tax simplification, are becoming ever more increasingly so. We therefore do not think that the limited scope review for Fair Tax Mark purposes can give legitimacy to the total taxes paid by Cadent.

Cadent spend a great deal of time liaising with HMRC across all of our taxes during any given year, responding to queries and hosting HMRC in response to detailed visits on specific areas, amongst other things. As a result, HMRC have a detailed knowledge of our business and the tax positions we are adopting. We strongly believe that Ofgem should rely on HMRC to apply suitable rigour over the review of Cadent's tax position in order to ensure that the company pays the right amount of tax due under UK tax legislation.

In the interest of providing further transparency, Cadent would be willing to explore sharing the outcomes of future HMRC Business Risk Reviews with Ofgem on a confidential basis.

FQ28. For Option A, how should a tax re-opener mechanism be triggered? Is there a materiality threshold that we should use when considering the difference between allowances and taxes actually paid to HMRC? If so – what might this be?

We do not believe that any further re-opener mechanisms are required in addition to those currently in operation.

It is important to return to the principle that the calculation of tax allowances for regulatory purposes should remain on the basis of a notionally geared efficient company. Any alternative to this risks making changes that unbalance and undermine the notional funding concept.

As evidenced in network company RFPR submissions, there are many legitimate differences between notional allowances and actual tax paid, and we remain of the view that these differences do not indicate an issue with the principles of the tax calculation within the PCFM. To adjust tax allowances for factors that are not subject to regulation would clearly not be appropriate.

As we have previously set out, the overall tax calculation is supported by the existing trigger events which allow for changes in tax rates ("Type A" trigger events), changes in accounting treatment or interpretation of legislation ("Type B" trigger events), together with the annual PCFM iteration and the additional clarity now provided by means of the RFPR. We are happy to work with Ofgem to consider further improvements on the operation of the PCFM and RFPR if that would be of use. For instance, we remain of the opinion that if the scope of the PCFM is broadened to holistically take account of relevant costs and revenues, that this would improve the precision of the tax allowance calculation in a manner that would directly flow to customer bills.

The principal reason for differences between allowed and actual tax will be the level of notional interest paid versus actual interest. A lower interest charge leads to a higher tax charge, and vice versa. The existing tax clawback mechanism allows for circumstances where actual gearing inside the ring fence is higher than the notional level, and as a consequence, interest costs are higher. We believe that this remains an appropriate controlling mechanism, and also observe that it does not operate against any materiality threshold. Our only suggested improvement is that the tax clawback mechanism could be integrated within the PCFM rather than being a stand-alone assessment as is currently the case.

RAV indexation (CPIH)

FQ29. What is your view on our proposal for an immediate switch to CPIH from the beginning of RIIO-2 for the purposes of RAV indexation and calculation of allowed return?

The immediate switch to CPIH results in an immediate increase in customer bills in RIIO-GD2, ceteris paribus, with longer-term bills being lower.

We propose that a decision on this is best made following a thorough review of company business plan submissions, customer engagement undertaken and assessment of the impact of all other elements of the price control proposals on customer bills, as we are not certain at this stage that an immediate switch necessarily represents the optimal outcome for consumers.

Ofgem do not appear to have undertaken any detailed analysis of the impact of retention of RPI, a transitioned implementation to CPIH, or a step change, and appear to favour the latter on the grounds of simplicity. Whilst the simple approach may have certain merits, we believe that these are secondary to ensuring the right long term balance between customer bill profiles and financeability.

We also consider that such a fundamental change to the regime warrants a more thorough analysis of the relative merits of different options on the part of the regulator than has been provided to date.

FQ30. Is there a better way to secure NPV-neutrality in light of the difficulties we identify with a true-up?

Our initial views on securing NPV neutrality are outlined below. We believe that these principles are applicable in any scenario for inflation indexation.

1. Risk is reduced where the approach to indexation is consistent across all touch points in the framework.
2. Where the impact of inflation is initially based on forecasts, this should be holistically and systematically trued up to actuals. This creates a symmetrical situation regardless of directional movement, and when coupled with 1 ensures that all components are updated in parity.
3. We consider that the PCFM could be better configured to ensure NPV neutrality and consistent application of inflation indexation, and that the proposition is improved where the PCFM considers the entirety of allowed revenue determination rather than the partial approach current employed in RIIO-GD1 (note that the current PCFM excludes inflation true up, cost pass through true up, output incentive revenue, innovation allowance and actual revenue collection). We also feel that this approach is beneficial to the accuracy of the tax and net debt calculations within the PCFM.
4. NPV neutrality can only be assured by direct comparison to the counter factual. In this case, this would be a comparison to the RPI case.
5. A switch to CPIH also should not enable the regulator to take a more aggressive stance on other elements of the price control proposals, such as WACC and totex allowances. This switch should not be seen as a financeability measure to accelerate cashflows. If it is seen in such way, then the principle of NPV neutrality would be significantly undermined, as it would represent a value leakage from companies to consumers.
    a. Based on Cadent's analysis of resulting financial ratios, Ofgem's proposals included in December 2018 methodology consultation, if adopted, would result in Ofgem failing its financeability duty in the absence of the switch to CPIH.

b. This ultimately means that the underlying level of allowances proposed by Ofgem is not sufficient to support an investment-grade rating for a notional company, i.e. which might indicate a very aggressive stance taken by Ofgem in making such proposals.

c. By proposing an immediate switch to CPIH, financeability is restored, however this is merely a cash acceleration which is subsidising the regime, and is not sustainable on its own.

d. Hence in Cadent's view financeability should be targeted on an RPI-real basis and only once the regime can be demonstrated to be financeable on that basis, a decision about the switch to CPIH should be made.

e. By doing so Ofgem will ensure that the switch is truly NPV neutral, and there are no latent biases created by cash acceleration.

Regulatory Depreciation

FQ31. Do you have any specific views or evidence relating to useful economic lives of network assets that may impact the assessment of appropriate depreciation rates?

For the gas distribution sector, a 45 year sum of years digits depreciation methodology was implemented at RIIO-GD1 for all post vesting RAV balances[44]. This was a change to the former straight line depreciation methodology. A non-enduring catch up adjustment was implemented in RIIO-GD1. The sum of years digits methodology has the effect of front loading depreciation such that 80% of RAV value is depreciated by year 25, and an effective economic life is 22.5 years. This offers protection against asset stranding.

At this stage, we see no benefit to altering this methodology for normal activities during RIIO-GD2. Slowing down or flattening the depreciation profile will exacerbate financeability issues, whilst acceleration would be damaging to customer bill levels.

A possible exception to this may be investment to support decarbonisation and the future role of gas, which may need case specific treatment both in terms of asset lives and capitalisation rates. Following the RIIO-GD1 convention for treatment of capex may create marked upward pressure on customer bills at a regional level if not distinctly treated. There is a broader point in relation to how such investment should be paid for by society. Ring-fencing this investment in a dedicated RAV balance would help facilitate future changes to the Gas Distribution Charging Methodology, or alternative recovery mechanisms.

Generally speaking, it may make most sense (given a variety of other factors) to consider asset lives and depreciation as part of the business planning process.

[44] Post 1st April 2003

Capitalisation Rates

FQ32. Do you agree with our proposed approach to consider capitalisation rates following receipt of company business plans?

We agree that this makes logical sense. Our working assumption is that opex / capex rates will be recalibrated based on prevailing proportions across RIIO-GD2, and that replacement expenditure would continue at 100% slow funded.

We note Ofgem's consideration to IFRS16, and recommend that business plan templates accordingly capture the funding requirements without distortion to underlying opex / capex splits. If this is not captured through template design, there is a risk of inconsistent treatment between networks which may be difficult to later unpick.

We also note that IFR16 may have implications for the measurement of financial performance, and should be appropriately captured in the Regulatory Financial Performance Reporting (RFPR) templates.

Notional Gearing

FQ33. Do you have any comments on the working assumption for notional gearing of 60%, or on the underlying issues we identify above?

Notional gearing should be a fair reflection of sector averages, and significant departures from previous practice should be avoided, as these can create real world implications for companies (for instance where protective debt and pension covenants are linked to notional gearing levels).

We note Ofgem's requirement to provide well justified proposals for notional gearing in business plan submissions, as part of an overall assessment of risk and financeability.

Notional Equity Issuance

FQ34. Do you agree with our proposed approach to consider notional equity issuance costs in light of RIIO-2 business plans and notional gearing?

We agree that this approach makes logical sense.

The RIIO-GD1 PCFM includes inbuilt logic regarding equity injection where notional gearing levels are exceeded within a tolerance. This in itself is an indicator of whether the notional proposition is financeable against a given set of input assumptions.

We do consider that the PCFM should, as far as possible emulate what would happen in the real world in different financing scenarios.

There are additional financing related parameters that will need to be reviewed as part of the RIIO-GD2 PCFM development. For instance:

- Amount of index linked debt as a proportion of total net debt
- Equity issuance threshold relative to notional gearing
- Assumed dividends as a % of equity RAV
- Specific assumptions for retained cash flow could be modelled

Pension Funding

FQ35. Do you agree that for RIIO-2 we align transmission and gas distribution with electricity distribution and treat Admin and PPF costs as part of totex?

We welcome that Ofgem have re-affirmed their commitment to consumer funding of pension scheme deficits in the main consultation document. We also welcome Ofgem's confirmation that the next triennial review of allowances of the established deficit will be completed in November 2020 in accordance with the PDAM timetable.

We do not agree with the proposal to include allowances for pension scheme administration and PPF costs in totex. In our view the existing arrangement, where Scheme administration costs are provided through a separate allowance, reviewed triennially outside of the price control, leads to the best outcome for customers as it creates the most optimal approach to pension costs overall.

The ability for the gas distribution networks to directly control significant parts of both Scheme administration costs and the PPF levy costs is limited. Certain minimum costs must be incurred under the regulations governing pension schemes, for example the mechanism for calculating PPF levy costs is set by the Pension Regulator. In addition, administration costs are outside the direct control of Scheme sponsors as they are the responsibility of the Trustees and depend on the particular details of the individual scheme – including the scheme assets, the number and profile of the membership and the investment and risk management strategy adopted.

Including administration and PPF costs in totex could incentivise distribution networks to encourage Trustees to minimise these specific costs with the unintended consequence of ultimately increasing the established deficits which are funded by customers. As schemes approach a position of full-funding and maturity, de-risking exercises, such as insurance solutions, are becoming increasing common. An insurance solution, such as a pensioner buy-in or longevity swap, could benefit customers by reducing established deficits and reducing the risk of increased established deficits in future and therefore reduce deficit contributions in the longer term. Such exercises are likely to benefit customers in the longer-term however they will increase administration costs in the shorter term.

In addition, following the High Court judgement in October 2018 in respect of the Lloyds Banking case regarding the equalisation of Guaranteed Minimum Pensions (GMP), pension schemes are required to equalise GMP for eligible members. The ruling set out a number of methodologies which can be adopted subject to agreement in some cases between Trustees and sponsors. If schemes are incentivised to minimise administration costs above the impact of the methodology adopted on the established deficit this could lead to sub-optimal outcomes for schemes and ultimately the customers who fund them.

Including allowances for pension scheme administration and PPF costs in totex would also lead to a loss of transparency of information. The current methodology providing a specific allowance for these costs is the best way to account for each network's individual circumstances. This also allows for actual costs to be compared with allowances and if necessary re-set following a triennial review, as they are now when, circumstances change.

It should be noted that the past pension liabilities for Gas Distribution and Transmission are not spread evenly across the Network Operators. Some historic network sales involved the transfer of only limited pension liabilities leading to large disparities between the various schemes sponsored by the Gas Distribution networks. The four Cadent networks carry the full scheme administration costs associated with all its liabilities, unlike Northern, Southern, Scotland and Wales & West Gas Distribution networks which support only a proportion of their historic liability costs as the remaining costs transferred to the NG Gas Transmission TO licensee on the sale of these networks in 2005/6. Because of this complicated liability and administration cost transfer from Gas Distribution to Gas Transmission, it will be difficult to take account of these historic differences in setting overall totex allowances. A comparison of overall totex allowances would be distorted by inclusion of a category of costs which is not comparable across the networks.

Directly Remunerated Services

FQ36. Do you have any views on the categories of Directly Remunerated Services and their proposed treatment for RIIO-2?

Ofgem's proposals for RIIO-GD2 are broadly aligned to the current Gas Transporter Licence, and we note the specific changes in respect of User Pays and Must Reads.

We consider that regulatory reporting could be further improved to ensure the appropriate reporting and separation of these categories at point of entry into reporting templates. This could be considered on both a cost and revenue basis, and there are some opportunities to cross validate between RRP reporting categories.

Disposal of Assets

FQ37. Do you have any views on the potential treatment of financial proceeds or fair value transfers of asset (including land) disposals for RIIO-2?

We have no major objection to the continuance of the exiting RIIO-GD1 approach.

The 5 year deferral incentivises networks to maximise disposal proceeds to the benefit of consumers in the long run because of a modest share of the value.

We note that the current PCFM and AIP do not account for disposals within the price control period, instead logging up the impact until RIIO-GD1 close out. This has the effect of delaying the return of value to consumers (in an 8 year price control). There may also be associated tax effects that are not captured by logging up the impact of disposal proceeds, therefore an opportunity to further refine the tax allowance calculation.

We consider that fair value is probably best assessed by independent valuation.

We do not anticipate significant disposal transactions in RIIO-GD2.