National Grid Transmission
RIIO-T1: Initial Proposals consultation response
Supplementary information – Financeability assessment

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Executive summary

1 The Ofgem financeability assessment raises a number of concerns, namely:

(a) A lack of transparency with regard to Ofgem's financeability assessment

(b) Accounting errors in the model such that credit metrics based on the financial statement data in the model are incorrect and misleading

(c) A failure to reflect in the financeability assessment the detail of the regulatory package proposed in Initial Proposals, particularly the delays implicit in some of the uncertainty mechanisms

(d) The poor projected credit metrics for NGGT, and non sustainable nature of the proposed package, which indicate that the proposals are not financeable using Ofgem's own assessment criteria

(e) A failure to give sufficient weight to the needs of equity investors

(f) The inadequate scope of the stress testing performed by Ofgem on the financial package

2 This paper explains the basis of our concerns and uses a corrected version of the Ofgem financial model to illustrate the significance and impact of each of the issues raised.

3 We take no comfort from discussions Ofgem has held with the credit rating agencies so far because they are unlikely to have taken place in the full knowledge that:

(a) No account has been taken of the material funding delays implicit in the uncertainty mechanisms.

(b) The financial statements in the model are incorrect and so cannot be used to generate the numbers required to calculate credit metrics.

(c) Assumptions are being made that additional equity will be provided despite a projected decline in earnings.

4 In light of the findings in this paper we cannot see how Ofgem can be deemed to have met their obligations to have regard to the financeability of the networks and can only draw one (or both) of two conclusions, either

(a) Accounting errors and a failure to fully understand or reflect the detail of the uncertainty mechanisms misinformed Ofgem's assessment such that an updated assessment would result in a different conclusion, or

(b) Ofgem has been complacent in its approach to financeability by failing to robustly apply the assessment criteria they previously set out, failing to give due consideration to the needs of equity investors, and possibly even a failure to consider the financeability of the notional networks as separate entities. Such a message would be worrying for both debt and equity investors.

5 Between now and Final Proposals Ofgem need to ensure that subsequent financeability assessments appropriately reflect the timing of when allowances and revenues would actually be received, particularly for uncertainty mechanisms, and to add functionality to capture the correct financial statement data to inform their assessment. They also need to

transparently apply the assessment criteria they set out in their RIIO decision document and to test any revised proposals against a range of plausible scenarios.

6 We believe that an updated assessment would establish that the package proposed for NGGT is not financeable, either during RIIO-T1 or longer term, and that a lower level of gearing, such as 55% is required.

7 Gearing of 55% may well not be sufficient however and Ofgem may wish to consider whether some of the uncertainty mechanisms should be based on an ex ante allowance which is subsequently updated through the uncertainty mechanisms rather than the current approach of providing no funds until a review has been completed.

8 A reduction in the modelling assumption for the equity injection threshold from 5% to 2.5% or less may also help to alleviate financeability concerns while the removal of the unwarranted restriction on the NGGT dividend may go some way towards dispelling any suggestion that Ofgem has been complacent in its attitude towards equity investors.

9 With regard to NGET, financeability is contingent on the assumption that additional equity will be provided. Ofgem needs to demonstrate that they recognise the importance of the role equity investors play and the requirement to attract equity. In this regard two measures which may restore some of the current imbalance include:

(a) An increase in the WACC to make the investment proposition more attractive to equity investors

(b) Extending the transition period to 45 year asset lives in NGET to 16 rather than 8 years to reduce the scale of the decline in earnings

Introduction

10 Ofgem acknowledged the impact on customers of a deficient financial package in their October 2009 document 'Arrangements for responding in the event that an energy network company experiences deteriorating financial health' where they wrote:

"Our primary statutory duty is to protect the interests of existing and future consumers. Should the financial position of a network company deteriorate, that company may struggle to continue to invest appropriately and maintain its network and deliver acceptable network performance and customer service. If those conditions prevail over time it may threaten the security and reliability of that network company's customers' energy supplies."

11 In setting the financial package it is important to recognise the consequences of getting it wrong. The water industry provides a useful illustration of what 'getting it wrong' entails. Following the 1999 water settlement there was a withdrawal of equity from the sector and capex fell in real terms for the period 2000 to 2004 compared to 1995 to 1999. The 2004 settlement increased the WACC and provided NPV positive financeability uplifts. Capex from 2005 to 2009 was significantly higher than 2000 to 2004.

12 Ofgem's determination of the financial package can be deemed to have (at least) two major parts (as well as a number of other elements such as asset lives, capitalisation rate, and transitional arrangements which feed into the overall assessment):

(a) Reviewing and calibrating the risk of our networks relative to other networks and TPCR4

(b) A financeability assessment to confirm that the financial package should allow an efficient network to finance its activities

13 This paper covers the second part. A separate paper reviews the relative risk assessment.

Ofgem's approach

Assessing financeability under RIIO

14 Ofgem set out the process by which it will assess financeability under RIIO in the March 2011 RIIO strategy decisions document. The RIIO-T1 and GD1 Financial Issues document dedicates a whole section to assessing financeability.

15 That document acknowledges that different rating agencies take into account a wider range of issues than just credit metrics and that a degree of judgement is applied.

16 Paragraph 4.6 of that document then states:

"Certain factors that credit agencies look at are largely common to all network companies (eg business risk, regulatory environment) and are taken as a given in our financeability analysis. Other factors are subject to each company's management decisions (eg the allocation of debt between holding company and licensee) and we abstract from these in our analysis by applying a notional financial structure to the licensees. Credit rating agency thresholds are then used to inform target credit ratio levels in our financeability analysis."

17 It is clear from the above extract from Ofgem's decision in this regard that if the 'common factors' are taken as a given, and financing decisions are abstracted from by applying a notional structure, then only the credit and equity metrics remain as a basis on which to judge the financeability of the network.

18 Paragraph 4.4 gave a succinct definition of financeability analysis:

"Financeability analysis (ie testing credit and equity metrics)"

19 This is reinforced by the fact that the remainder of the relevant section in the decision document then focuses on metrics including, for example, the target credit metrics and how Ofgem will assess them.

20 Figure 4.1 of the document set out the metrics expected by each of the agencies and is reproduced below. Ofgem stated "we will use the ratios in Figure 4.1 to inform our financeability analysis for RIIO-T1 and GD1."

Figure 4.1: Credit metric ratios

	Fitch		Moody's		Standard & Poor's	
	A	BBB	A	Baa	A	BBB
Net debt / RAV (%)	50 - 65	>65	45 - 60	60 - 75	<70	>70
FFO interest cover (x)	4.0 - 5.0	<4.0	3.5 - 5.0	2.5 - 3.5	>3.5	2.5 - 3.5
PMICR[1] (x)	>1.7	<1.7	2.0 - 4.0	1.4 - 2.0		
FFO / Net debt (%)			12 - 20	8 - 12	>12	8 - 12
RCF / Capex (x)			1.5 - 2.5[2]	1.0 - 1.5[2]		

[1] Moody's calls this metric 'Adjusted interest cover ratio (ICR)' but the definition it uses is consistent with the definition of PMICR used by Fitch.

[2] According to Moody's, utilities undergoing a large capex programme who do not benefit from accelerated depreciation are expected to score this metric at a Ba level, i.e in the range 0.5 - 1.0.

21 In the case of S&P Ofgem specifically noted that the values were for companies with an "excellent business risk". This means that these metric values already take account of the credit support provided by the currently positive view of the regulatory regime in the UK.

22 Having established that the analysis would therefore focus on metrics paragraph 4.12 noted:

"We seek to understand better any instances in which a network company:

- *Fails to meet a target ratio for a sustained period (ie several years)*
- *Deviates significantly from a target ratio (either above or below) for more than one year in a row*
- *Repeatedly fails one target ratio while passing all others"*

23 Having set out this guidance, investors now expect financeability to be assessed against these criteria.

Transparency of financeability assessment

24 The RIIO strategy document from 2011 stated that the RIIO framework delivers it goals by *"underlining our commitment to ensuring efficient companies are able to attract equity and debt through a transparent and stable approach to financeability."*

25 It follows that for the approach to be stable it should follow the process set out in the decisions document and summarised above. For it to be transparent, Ofgem should publish the metrics that they have assessed using the criteria previously set out.

26 The relevant sheets that calculate the credit metrics were deleted from the financial model prior to the publication of the Initial Proposals. This approach is inconsistent with Ofgem's stated intent to have a transparent approach to financeability in several respects:

(a) Licensees were required to submit well justified business plans with a full justification of their proposals, including the financeability assessment. However Ofgem appears to hold itself to a different standard in this regard. The Initial Proposals do not include sufficient information to understand the basis on which Ofgem has concluded the proposed financial packages are financeable.

(b) It is difficult to see how stakeholders can understand or meaningfully comment on the proposals when critical information is deliberately omitted.

(c) We cannot be certain how Ofgem has calculated the relevant credit metrics. A significant number of concerns were raised on the Ofgem calculation of credit metrics in earlier versions of the financial model prior to Initial Proposals. While we know how the metrics were calculated in previous models we do not know for certain how they have been calculated as part of Ofgem's assessment. The production of data on a regulatory as well as statutory financial basis only serves to add confusion in this respect. This represents a difference from previous controls where the number of potential regulatory adjustments was fewer and the basis of calculations was well established and generally well known and understood.

(d) Ofgem has stated informally that they removed the metrics because people calculate them in different ways. Given the concerns in this area, this response does nothing to assure stakeholders that the Ofgem assessment was appropriate. The decision not to publish the results of the metrics could imply that they do not present the confident picture of 'comfortable investment grade' referred to in the City briefing presentation. Alternatively the lack of any financeability assessment within the financial model could indicate that Ofgem

has been overly complacent in its assessment of the financeability of the networks. This is a disturbing message to give to investors for the first set of RIIO controls and one which Ofgem has previously worked hard to dispel.

27 We have sought additional clarification on a number of points concerning the financeability assessment since the publication of Initial Proposals. While Ofgem are unwilling to share the credit metrics or results of the financeability assessment, they have assisted in our understanding of the proposals by:

(a) Setting out in their March 2011 RIIO strategy document the credit metric values that inform their financeability assessment, based on the expectations of each of the main rating agencies.

(b) Explaining their approach to the financeability assessment in paragraphs 4.3 to 4.5 of the Initial Proposals Finance Supporting document.

(c) Reviewing calculations that we provided (based on the Ofgem model) and confirming that they had no major issues with them

(d) Clarifying that as part of the financeability assessment Ofgem has considered a scenario where it is assumed the company spends in line with Ofgem's proposed view of efficient costs. We note that their view of efficient costs is lower than the allowances.

(e) Confirming that the assessment was for the eight years of the RIIO-T1 period

(f) Confirming that they have calculated annual values of the credit metrics but also assess the worst three year average value of each metric during the period

(g) Confirming that it is not unreasonable to conclude that the scenarios listed in paragraph 4.5 represent a complete list of the stress testing performed and that totex under / over spends typically use an assumption of a 10% variance.

Reproduction of 'base view' and 'best view'

28 In the absence of Ofgem's detailed financeability results we have calculated the credit metrics that we believe Ofgem's approach would produce. We have done this by adding functionality to the published Ofgem financial model to calculate the credit metrics. Ofgem has confirmed that they have no major issues with the calculations that we have performed.

29 Within the Initial Proposals Ofgem presents the allowed revenues for two scenarios, a base view and a best view. In paragraph 7.1 of the Finance supporting document Ofgem explain that the base view represents "the revenues set in the licence at the time of Final Proposals" whereas the best view expectations "include our [Ofgem's] estimate of the likely outturn and use made of the various uncertainty mechanisms." In line with this approach we have calculated metrics both for the base view and best view.

30 For each scenario we have provided a tabular summary to give a snapshot of the key credit metrics. That table provides an indicative red / amber / green perspective, a brief comment on the level of the metric based on the table published by Ofgem and an indication of the trend over the RIIO-T1 period. Graphical presentations of the data are provided in the appendices. The credit metrics presented are based on the regulatory financial statements whereas earnings results are based on an accounting view.

NGGT

31 The table below summarises the credit metrics for NGGT, graphs can be found in appendix NGGT1.

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGGT Best view	Mid BBB falling to sub investment grade	Low A falling to mid BBB	Low BBB to sub investment grade	Mid to low BBB
	Declining trend	Declining trend	Declining trend	Declining trend
NGGT Base view	Mid BBB rising to A in 2019/20	A	Low to high BBB	BBB to A in 2019/20
	Metric picks up when gearing falls	Metric picks up when gearing falls	Metric picks up when gearing falls	Metric picks up when gearing falls

32 The best view presents a picture of decline. The gearing ratio progressively rises towards 65% by the end of the period due to the high (5%) threshold placed on equity injections. Based on the metrics reviewed by Ofgem in their strategy document and reproduced above, this level of gearing would represent a Baa rating for Moody's.

33 The FFO / debt ratio shows a particularly poor profile, starting at mid BBB (10%) and falling to below 8% (sub investment grade) in the last two years of the RIIO period.

34 The PMICR metric starts as 'A' rated but falls to low/mid BBB by the end of the RIIO period.

35 Ofgem's preferred FFO cash interest cover metric is mid BBB for the early years of RIIO and low BBB for the last three or four years. If inflation accretions are included in the denominator the metric is sub investment grade for the majority of the RIIO-T1 period.

36 The drop off in metrics in the latter half of the RIIO period is partly due to additional positive cash flows such as the revenue driver income from TPCR4 coming to an end. It is clear therefore that the underlying financeability is poor despite the metrics of the notional network being supported by incentive scheme revenues from previous price control settlements.

37 Exactly what the credit rating would be with these metrics is unclear and different rating agencies will focus on different metrics. A generous interpretation may be mid BBB but where an agency focuses on FFO / debt or the more conservative measure of FFO / interest preferred by S&P, low BBB is more likely with a threat of being below investment grade since a couple of the metrics fail to achieve an investment grade outcome in later years and agencies sometimes apply a greater weighting to aspects of their rating assessment which are of concern. On this basis it is difficult to see how Ofgem could conclude the metrics are comfortable investment grade using the metric targets set out in their decision document.

38 The metrics do look better for the 'base view' but little comfort can be drawn from this. FFO / debt is mid BBB for the majority of the RIIO period. While the FFO / interest metric improves during the RIIO period this is only because the gearing ratio progressively falls

from 60% down to below 50%, i.e. the metrics are typically BBB (with the exception of PMICR) but only achieve this level because the assumed gearing is significantly below the 62.5% notional finance structure that is assumed in remunerating investors.

39 Also, for NGGT, the base view includes no new untriggered incremental capacity is delivered during the RIIO-T1 period. This is not a credible scenario given the eight year timeframe that the RIIO period covers.

40 For both of these reasons it is difficult to see how the base view credit metrics can meaningfully be given any significant weight in the financeability assessment.

NGET

41 The table below summarises the credit metrics for NGET. Graphs can be found in appendix NGET1.

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGET Best view	A-	BBB+/A- to mid BBB	High/mid BBB	A
	Declining trend	Variable	Stable	Stable
NGET Base view	A	BBB+/A- to high BBB	High/mid BBB	A
	Stable	Declining trend, levels off	Stable	Stable

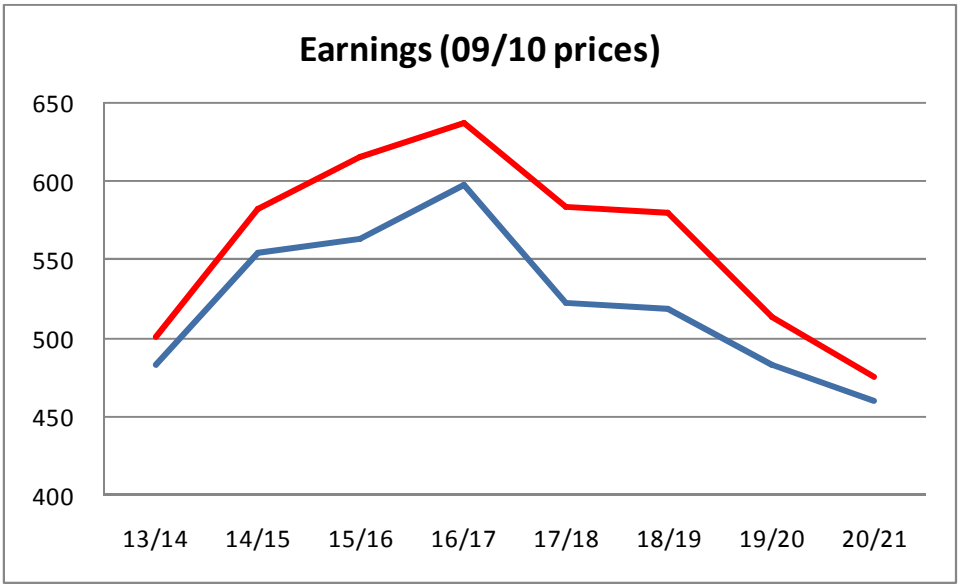
42 The credit metrics as presented are generally acceptable and consistent with the use of a cost of debt index set at an average of A and BBB rated debt. However, the metrics are supported by a number of legacy income recoveries. This is visible in the PMICR where the metric drops once the capex incentive and work in progress recoveries stop.

43 The graphs in appendix NGET1 demonstrate that while the credit metrics may appear acceptable the equity metrics do not. The regulated equity / EBITDA ratio rises for both the best and base views from approximately 7 in 2013/14 to 11 or more by 2020/21. The implication is that equity holders will see declining earnings per share. This is likely to be seen as unacceptable, particularly since the Initial Proposals best view assumes equity injections of £1.4bn[1].

44 The chart below shows projected earnings in 2009/10 prices. The red (top) line represents the best view and the blue (bottom) line is the base view.

[1] The £1.4 billion differs from the £1.3 billion referred to in Ofgem's Initial Proposals because of adjustments we have made to the financial statements to correct for the tax payment omissions referred to later in paragraphs 93 to 95.

Earnings for the NGET 'best view' and 'base view' scenarios



45 For the 'best view' equity investors are being asked to inject £1.4bn of additional equity, of which £0.6bn is in 2017/18, to fund real RAV growth over the RIIO period of 65% (growth of 6.4% p.a.). However, earnings are expected to be lower in 2020/21 than in 2013/14 and to fall by £162m (25%) between 2016/17 and 2020/21 for the best view. The results are very similar for the base view though the equity injections are lower at £0.8 billion.

Base versus best view

46 We understand that in part, Ofgem has focussed attention on the base view because of the uncertainty inherent in the best view, i.e. some of the capex may not happen. While we agree that there is uncertainty as to exactly how much investment will be required we do not agree that this makes the base view a more appropriate scenario to consider. If anything, we believe more weight should be given to the best view.

47 This is particularly relevant to Gas Transmission where the base view has a zero untriggered incremental capacity baseline and so excludes pretty much all load related investment. While the base view certainly includes too little investment to be relevant, the 'best view' is not necessarily too high.

48 Even in the best view Ofgem has chosen to assume a far lower volume of industry driven investment than our business plan which was based on market intelligence at the time. In theory the choice of best view does not matter as uncertainty mechanisms should adjust revenues accordingly. However, given the level at which Ofgem has set the 'best view' we believe there is more scope for investment to exceed best view than for it to be lower. Consequently, out of the two scenarios 'best view' is a more appropriate scenario to use for the financeability analysis than base view.

49 The price control needs to be designed to ensure that an efficient network is financeable under a range of credible scenarios, including both 'base' and 'best' view. Based on our comments above the remainder of this paper focuses on the 'best view' but then considers a variety of different scenarios both to highlight the impact of specific issues and to stress test the proposals.

'Best view' financeability analysis

50 While the previous section presented the metrics that we believe Ofgem would have looked at, this section highlights deficiencies in that assessment for the 'best view' scenario.

51 We are concerned with the financeability analysis on several levels:

(a) The credit metric calculations performed

(b) The imprudent financeability assessment

(c) Accounting errors in the modelling impacting on the credit metric calculations

(d) A failure to properly reflect the proposed regulatory package in the financial modelling because of significant oversimplification

(e) A failure to give appropriate weight to the needs of equity investors

Credit metric calculations

52 As mentioned in paragraph 24 above, we have previously expressed concern that the credit metrics used as part of the financeability assessment are incorrect. Issues that we have previously highlighted include:

(a) The focus on an inappropriate treatment of inflation accretions on index linked debt in the FFO / interest metric.

(b) A lack of adjustments for the difference between fast cash and operating costs, where the difference is material

Inflation accretions on index linked debt

53 Ofgem states in paragraph 4.4 of the Finance supporting document that they exclude the inflation accretion component of index linked debt from the FFO / interest ratio "in line with the approach taken by the major credit rating agencies".

54 In their April 2009 document 'New Methodology For Inflation-Linked Debt Has No Immediate Effect On Ratings On U.K. Regulated Utilities,' Standard & Poor's (S&P) explained the approach that they take in calculating the credit metrics of regulated utilities that issue index linked debt. They wrote:

"The primary reason for adopting a new methodology for inflation-linked debt is to move away from an approach to analysis of FFO that could penalize issuers that fund themselves only with plain vanilla, or nominal interest-bearing, debt. Without this adjustment, we believe that those utilities that issue inflation-linked debt will report relatively lower cash interest costs, and correspondingly higher unadjusted FFO because a portion of their cash interest cost is deferred until maturity, and even then, is shown as debt repayment rather than interest. We therefore seek to reflect the full economic cost of inflation-linked debt in the period in which it is incurred by reducing FFO by the entire interest expense reported in the profit and loss statement, rather than only cash interest as reported in the cash flow statement. The reported interest expense will typically include interest payable and principal indexation (including the effect of swaps linked to the retail price index)."

55 We think it is important to distinguish between the numerator and denominator of the metric and suspect that the current calculations may be misstated due to confusion between the two.

56 The theme of the S&P note is very clear. They expect the FFO based credit metrics to be the same for a network regardless of whether or not it issues index linked debt. By excluding the inflation accretion component of interest expense from the denominator the Ofgem calculations, as we understand them, overstate the FFO / interest metric and present a more positive picture than would actually be the case.

57 Our interpretation of the S&P approach is confirmed, for example, by examination of S&P's FFO/Interest calculation for National Grid plc, which clearly shows that the full interest expense including accretions is used in the denominator of the calculations.

58 Other agencies may choose to exclude the inflation accretion component of index linked debt in working out FFO/Interest but S&P is the only agency that uses FFO / Interest as its preferred interest cover metric. Both Moody's and Fitch prefer to use the Adjusted Interest Cover ratio or PMICR as appropriate. It follows therefore that the notional FFO / Interest ratio should include inflation accretions (in the denominator), as otherwise Ofgem are calculating a ratio which none of the agencies focus on.

59 This paper presents both measures of FFO / Interest both to demonstrate the magnitude of the impact the different calculations have on the metric results and to ensure full transparency of the various results. The measure including inflation accretions in the denominator is entitled 'FFO Interest cover (S&P)' in the tables and the measure excluding accretions is called 'FFO Cash Interest cover'.

Adjustments for fast / slow money

60 Ofgem has responded to network concerns that the metrics do not adequately adjust for the difference between fast money and operating costs by running two sets of metrics, one on a regulatory view of financial statements and one on an accounting view.

61 While we agree with the concept of making adjustments for fast / slow money we do not think the adjustments performed would reflect the treatment that the rating agencies are likely to adopt. Specifically, we think the agencies are only likely to adjust for the difference between fast cash and operating costs under the following circumstances:

(a) To continue to reflect an adjustment for repex fast money in Gas Distribution

(b) If the difference between fast money and operating costs is material.

62 Ofgem has given most emphasis to metrics calculated using the regulatory treatment of totex. These use a fast / slow money treatment of costs rather than opex / capex for all years regardless of the scale of the adjustment. We are not confident that the agencies would calculate the metrics in the same way. There is also a degree to which the agencies may review their calculations and approach once the materiality of some of the adjustments becomes clearer within the RIIO-T1 period.

63 As explained later in paragraph 79, the metrics can look quite different depending on whether the numbers are based on a regulatory view, accounting view, or some sort of combination.

The imprudent financeability analysis

64 We believe the financeability assessment performed by Ofgem is insufficiently prudent because, effectively, the hurdle against which the proposals have been assessed is too low.

65 This concern manifests itself in two ways:

(a) In the choice of credit metric calculations

(b) In the level of expenditure used in assessment

Credit metric calculations

66 The Finance Annex of our business plan explained that the approach of all three rating agencies to calculating credit metrics is important. A downgrade by any individual agency would most likely make it more difficult and more expensive to raise finance causing the cost of capital to increase. With this in mind it is essential that the financeability assessment should consider the approach and calculations of all the major agencies.

67 Evidence presented in our business plan explained that for corporate bonds issued over the last 10 years, 57% were covered by all three agencies and the bulk of the remainder were rated by two agencies. With this in mind it would be inappropriate to just apply the generic calculations of any one agency.

68 Through informal dialogue it is evident that Ofgem does not consider the separate approaches of each of the major rating agencies. This decision is all the more surprising given the fact that the cash lock up provisions of current licence condition A39 / B9 (Indebtedness) are activated if any one credit rating agency gives us a non investment grade rating, or our rating is Baa3 / BBB- but on review for possible downgrade, or is on credit watch or rating watch with a negative designation. This condition implicitly recognises the consequences if the rating from any one agency falls below investment grade.

69 To apply a generic approach may be acceptable if the metrics reviewed encompassed the approach of each agency without material omission. Ofgem's approach has the potential to do this as they review six credit and two equity metrics. Unfortunately, however, the decision to exclude inflation accretions from the denominator of FFO / Interest in contradiction of the approach of the one agency (S&P) that uses it as a preferred measure indicates a preference for Ofgem to choose the formula that gives the most favourable result.

70 The decision to remove the metric calculations from the financial model also indicates unwillingness by Ofgem to share their workings which not only demonstrates a lack of transparency but also sits in contrast to the requirement on networks to provide evidence to support their business plans.

Level of expenditure used

71 Paragraph 4.5 of the Initial Proposals Finance Supporting document clarifies that Ofgem's financeability analysis has been tested for the efficient company assuming its expenditure is in line with Ofgem's view of efficient costs. Due to the operation of IQI mechanism, the totex allowances that have been set to reflect 75% of the Ofgem view and 25% of the (higher) network view. Consequently, Ofgem appear to be assuming that each network will manage to spend less than their totex allowances for the purposes of the financeability assessment. It is not clear to us that this approach is appropriate since Ofgem's approach

to setting the allowances, partially at least, acknowledges that their view of efficient costs may be wrong. It is also a break with normal practice for the regulator to assess financeability with an underlying assumption that costs will be lower than allowances.

72 This is a very optimistic position that reinforces the view that Ofgem has set the financeability test hurdle at an inappropriately low level. In part, the IQI mechanism sets allowances at an interpolated point between the Ofgem and network view to reflect the risk that Ofgem's assessment of efficient costs may be wrong.

73 Networks, and National Grid in particular, have provided extensive evidence, including benchmarking evidence, in support of their business plan costs. National Grid has also embedded a considerable efficiency challenge in its business plan such that unit costs are lower than it currently achieves. Despite this Ofgem has taken a view that the efficient level of costs is even lower. We challenge the results of Ofgem's efficiency assessment elsewhere in our consultation response and so do not repeat those comments here.

74 As explained in paragraphs 83 to 98 below, the financial statements pages of the Ofgem financial model do not accurately capture the revenues, debt and interest values of the business under circumstances where costs differ from allowances.

75 We have discussed these concerns with Ofgem who have confirmed that their review of the 'efficient costs' scenario was performed offline, i.e. they did not use the model to generate the financial statements and credit metrics, and that they considered scenarios both with their view of efficient spend and where spend matched allowances.

76 In the interests of comparability the majority of scenarios presented in this paper assume costs are in line with allowances. However, in line with the approach adopted by Ofgem we have reviewed financeability for a scenario where costs are lower than allowances and match Ofgem's view of efficient costs based on information they have provided to us.

77 Appendices NGGT2 and NGET2 present the credit metrics for the best view with Ofgem's view of efficient spend compared to the view where expenditure equals allowances. In the case of NGET the two sets of metrics are virtually the same demonstrating that such a view does not make a material difference.

78 That the impact is marginal is not surprising. Allowances have been set on the basis of 25% of the licensee view and 75% of the Ofgem view of costs. Taking NGET as the example, an IQI ratio of 108 implies a difference between allowances and Ofgem's efficient view of costs of only 2%, spread across opex and capex. The subsequent operation of the totex incentive mechanism would then adjust revenues with a two year delay so for all years from 2015/16 onwards the 2% cost variance results in offsetting amendments to revenue.

79 In the case of NGGT, metrics are different but the impact is still relatively marginal and not enough to change the assessment of financeability presented in paragraphs 31 to 37 above. This result may be surprising. We have reviewed these results using credit metrics based on regulatory financial statements and based on accounting numbers. If regulatory numbers are used (as in appendix NGGT2) the impact on the metrics is marginal whereas with accounting numbers the metrics are improved a little. This highlights the relevance of the concern reported in paragraph 62 that we cannot be sure how the credit rating agencies will calculate the metrics in the future.

80 The primary difference between the two sets of metrics is whether FFO is calculated after deducting opex from revenues or after deducting fast money. However, it is important to bear in mind that capital expenditure (or slow money) falls outside the FFO measure and impacts only on the debt and interest values used in the credit metrics. In contrast, the

revenue adjustment from the expenditure variance does include the impact of the capex variance and revenue is included in full in the FFO measure. These factors and the mix of opex and capex assumed to be incurred by the transmission networks generate the results discussed here and presented in the appendix.

Imprudent financeability assessment

81 Taken together, choosing first to calculate credit metrics on the basis which generates the most positive outcome (excluding inflation accretions from the FFO / Interest metric), and then to use lower costs than the allowances, results in an imprudent financeability assessment which, by design, may be unable to adequately identify the risk that a network will not be financeable (particularly if an accounting view of credit metrics is adopted).

82 This approach reinforces the suggestion that financeability has not been given sufficient weight in Ofgem's process of determining the financial package.

Accounting errors in the financial model

83 In preparing to calculate the credit metrics from the published financial model we have identified a number of errors with the modelled financial statements that are material to the financeability analysis. These include:

(a) They do not capture and record the revenues, costs, debt balance and interest costs anticipated for a given year. This data is effectively overwritten through the annual iteration process.

(b) They do not use the costs incurred (and associated cash flows) if costs differ from allowances.

(c) They omit significant tax payments from the cash flow analysis and so further misrepresent the debt balance and interest costs

The annual iteration process overwrites financial statement data

84 The financial model has primarily been designed to calculate two things:

(a) The initial base revenues that will go into the licence and which currently form the 'base view' Initial Proposals.

(b) Subsequent modifications to 'base revenues' calculated as part of the annual iteration process as a result of, for example, the operation of the totex incentive mechanism.

85 The focus of modelling efforts to date has been on this functionality and the calculations of allowed revenues are generally fit for purpose.

86 The financial statements sheets have been added so that Ofgem (and other users of the model) can calculate a number of credit and equity metrics for the purposes of the financeability assessment. These financial statements are materially incorrect for any scenario where there is a permanent or temporary difference between allowances and costs. Permanent or temporary differences will arise if costs incurred differ from allowances or if there is any delay in when allowances are triggered under an uncertainty mechanism (e.g. a re-opener or mid-period review retrospectively setting allowances for the RIIO-T1 period). Any metrics calculated using the statements will therefore be incorrect and potentially misleading.

87 If costs match allowances, both in terms of value and timing, the financial statements correctly reflect the expected outcome. They do not correctly reflect the expected outcome if costs and allowances differ. The problem arises because the model, by necessity, has to be run to calculate base revenues one year at a time in line with the annual iteration process of the model set out in the draft licence conditions.

88 The model recalculates what the base revenue should have been for all eight years of RIIO-T1 and compares those revenues to the results from the iteration for the previous year. It then performs a net present value true up adjustment for all of the differences for earlier years in an adjustment to the revenue calculated for the current year. This approach is a sensible one and the model executes it appropriately.

89 The annual iteration process is designed, again by necessity, to compare actual costs and allowances with a time lag of two years, so costs for 2013/14 are compared to allowances for 2013/14 when calculating income for 2015/16. As stated above, the model calculates revenue for all eight years during each annual iteration so in calculating income for 2020/21 the model will compare costs to allowances for all years from 2013/14 to 2018/9.

90 Taking an example, the revenue calculation for 2018/19 will have used allowances for that (and all prior years) known by November 2017, and the costs incurred for all years to 2016/17. An assumption is made that costs equal allowances for 2017/18 and 2018/19. The resulting revenue will be the base revenue that the company is entitled to in that year and should be used to inform the financial statements. However, when a model calculation is performed for 2020/21, the recalculated base revenue for 2018/19 will include a comparison of costs for all years up to and including 2018/19, with an updated view of allowances for all years up to 2018/19 and beyond to 2020/21. The model will therefore calculate a new, different revenue number for 2018/19. This recalculated revenue number will not change the revenues actually received in 2018/19, it will change the revenues due in 2020/21.

91 Unfortunately, the formulae for the numbers in the financial statements of the model pull their inputs from the live calculations. There is no process within the published model to capture the modelled financial statements for prior years as the user steps through and performs subsequent annual updates. This means that data such as revenue, costs, debt balance, interest costs and tax do not include the correct values. Given the importance of each of these numbers to cash flows and credit metrics it is clear that the financial statements within the published model contain inaccurate and misleading data for any scenario where costs do not match allowances. This issue was verbally acknowledged by Ofgem in a discussion on 7th September 2012.

Costs are not used in the financial statements

92 To compound this issue, the costs and cash flows for opex / capex or fast / slow money (depending on whether the regulatory or statutory financial statements are being reviewed) are taken from the base revenue calculation. What this means is that they take the value of the recalculated allowance. Where costs do not match allowances, the value included in the revenue calculation does not represent the costs expected to be incurred due to the operation of the sharing factor in the totex incentive mechanism. It is clear therefore that the model does not use the costs expected to be incurred in the financial statements.

Omission of tax cash flows

93 The regulatory contract provides National Grid with income under legacy arrangements. The legacy TPCR3 and TPCR4 gas revenue driver income in NGGT and Transmission Investment in Renewable Generation (TIRG) in NGET are two examples. In addition,

there are a number of items included in the allowed revenue calculation relating to adjustments from previous price controls.

94 These revenues are correctly excluded from the calculation of the regulated tax allowance. However, while these revenues are rightly excluded from the calculation of tax allowances, tax will nevertheless be paid on them and those tax cash flows are relevant to the financeability of the business. These tax payments are directly attributed to the efficient regulated business for which financeability should be assessed.

95 These payments are material. To give an indication of scale, the net tax paid over the first four years on the gas revenue driver income will be circa £87m. This is only one of the revenue streams for which the tax payments have been omitted. The current Ofgem model does not calculate this tax payable and so fails to take these cash flows into account in the financeability analysis.

Impact of errors on financeability assessment

96 The financial model does not capture the costs actually incurred if they differ from allowances. Neither does it capture the correct data for the financial statements as it steps through the annual iteration process. A financeability assessment cannot therefore be accurately performed based on the financial statements in the model. To address this issue requires either additional functionality to be added to capture the relevant financial statement data, or a full set of offline calculations be performed outside the model.

97 For the reasons above, any financeability assessment for scenarios with costs different to allowances in the financial model alone will have been misinformed if it was based on financial statement data from the model.

98 Subsequent to Initial Proposals Ofgem has confirmed that the financial statements are not correct when costs and allowances differ. This issue has been identified subsequent to the setting of Initial proposals and so it is reasonable to believe that Ofgem's financeability assessment was materially impacted by this accounting error and that corrected analysis would generate different conclusions.

99 Two of the three modelling issues relate to scenarios where costs differ from allowances, either permanently or on a temporary basis (due to the operation of uncertainty mechanisms as explained below). The omission of tax payments is relevant to every scenario and means that any credit metrics reviewed will have been incorrect.

100 The credit metrics presented within this paper include corrections for all three issues and so are likely to differ from the credit metrics viewed by Ofgem in performing its financeability assessment.

Failure to model the detail of the Initial Proposals

101 Our gravest concern with the Ofgem financeability assessment is the fact that the assessment has not actually been applied to the Initial Proposals. Simplifications and omissions have been made such that the financeability assessment is based on a set of financial outcomes which would not occur even if everything turned out in line with expectations.

102 Specifically, we believe the financeability assessment has:

(a) Omitted significant expenditure

(b) Ignored the impact of delays in funding under the various uncertainty mechanisms

Omission of expenditure

103 NGET will incur load related capital expenditure during the RIIO-T1 period to deliver additional capacity during RIIO-T2. This expenditure is estimated to be £462m in 2009/10 prices and Ofgem has disallowed it for the RIIO-T1 period on the basis that it will be remunerated in RIIO-T2. There is no suggestion that NGET should not spend the money during the RIIO-T1 period because to defer expenditure would delay the delivery of additional capacity.

104 Despite the fact that this expenditure is expected to be incurred it is omitted from the financeability assessment.

105 In the absence of a mechanism to provide on account funding for capital work in progress, such as the RIIO-T2 output expenditure, the only revenue that will be received during the RIIO-T1 period will be based on 48% of any 'overspend' as a result of the totex incentive mechanism.

106 However, since the expenditure is weighted towards the latter years of the RIIO-T1 period and the totex incentive mechanism provides revenues with a two year delay, in effect negligible funding will be received.

107 The impact on the metrics is presented in appendix NGET3. The metrics are actually improved by the additional expenditure but this is because of a significant increase in the equity injected to £2.4 billion. The 2.5% tolerance on the debt / RAV ratio prevents the gearing from getting too far out of line and helps to keep the metrics in line. However, this scenario illustrates that the automated nature of the equity injections is very sensitive to the scenario modelled. The increase in the equity injections is double the value of unfunded expenditure but has the effect of reducing the expected rate of gearing over the price control period.

Impact of delays

108 A second simplification to the financeability assessment is to assume no delays in the funding received through uncertainty mechanisms, i.e. to assume that additional allowances triggered by uncertainty mechanisms provide additional revenue in the same way as the non-variant allowances used for the baseline. This is an over simplification which materially misstates the financeability of the network.

NGGT

109 Examples of delays to additional revenues that will automatically occur through the operation of the uncertainty mechanisms in Gas Transmission are those that relate to expenditure on:

(a) Network flexibility

(b) GT asset health

(c) CNI

(d) Industrial emissions directive (IED)

(e) Bi-directional investments

110 In the case of the first three categories of additional allowance, the Initial Proposals provide an uncertainty mechanism in the form of a re-opener where the first window is May 2015. Allowances agreed at this first re-opener would be included in the annual iteration of the model performed in November 2015 for recovery in income from 2016/17.

111 Even if it is assumed that this first re-opener results in full allowances being given for the retrospective RIIO-T1 period to date and all subsequent years of RIIO-T1, no income will be received until 2016/17 at the earliest. While any such income adjustments would be calculated with a net present value true up, this does not change the fact that, based on Ofgem's best view, NGGT would incur £192m in the first three years of RIIO before any revenues were received.

112 The form of the uncertainty mechanisms for IED and bi-directional investments is the mid-period review. If a mid period review is completed as early as November 2016 (the fourth year of the RIIO control), income will be adjusted from 2017/18.

113 Again, assuming that these uncertainty mechanisms result in full allowances being given for the retrospective RIIO-T1 period to date and all subsequent years of RIIO-T1, no income will be received until 2017/18 at the earliest. While any such income adjustments would be calculated with a net present value true up, under the best view scenario NGGT would incur £344m in the first four years of RIIO before any revenues were received.

114 Taken together this amounts to £535m of costs incurred during the first three or four years of RIIO, with cash going out of the door, with no corresponding income cash flow coming in.

115 The results previously presented in this paper did not take account of these funding delays. Appendix NGGT4 presents the impact of reflecting these delays on the financeability assessment. the table below summarises those results

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGGT Best view	Mid BBB falling to sub investment grade	Low A falling to mid BBB	Low BBB to sub investment grade	Mid to low BBB
	Declining trend	Declining trend	Declining trend	Declining trend
NGGT Best view with UM delays	BBB- / Sub investment grade	BBB	Sub investment grade	Low BBB
	Variable	Variable	Stable	Stable

116 Reflecting the delays in funding from uncertainty mechanisms causes significant deterioration in the metrics in the early years of the RIIO period and raises a very real prospect of NGGT not being investment grade. This is not surprising since costs are unchanged but the revenues are lower until the uncertainty mechanisms are activated at the mid period review or reopener windows.

117 This is not a modelling sensitivity from the 'best view' scenario, it is a more accurate representation of the detail of the Initial Proposals. These funding delays are an intrinsic part of the current design of the uncertainty mechanisms. If funds will only be set at a mid

period review then it is clear that no funding will be provided until the results of that review have been concluded.

118 These funding delays could be mitigated by providing additional allowances at Final Proposals which could then be reassessed and updated through the operation of uncertainty mechanisms.

NGET

119 Examples of delays to additional revenues that will automatically occur through the operation of the uncertainty mechanisms in Electricity Transmission are those that relate to expenditure on:

(a) Generation connections

(b) Demand connections

(c) Wider works

(d) CNI

120 With generation connections the uncertainty mechanism will only trigger additional allowances after additional connections have been delivered. A connection completed in 2018/19 will only be recognised once the financial year is complete and will then be used during the annual model iteration in November 2019 to amend revenue in 2020/21. However the real delay between additional spend being incurred and the corresponding additional revenue actually materialising is far longer than two years, as the following paragraphs show.

121 The expenditure to deliver an additional generation connection is typically phased over a five year period with an approximate profile of 5%, 15%, 30%, 30% and 20%. Continuing with our example of a connection delivered in 2018/19, the expenditure would have been over the period 2014/15 to 2018/19. This means that the funding is delayed by two to six years.

122 The picture is similar for demand connections where the uncertainty mechanism will only trigger additional allowances after additional connections have been delivered. In this case the expenditure is typically phased over a four year period (10%, 40%, 40% and 10%) such that funding is delayed by two to five years.

123 Wider works covers expenditure allowances triggered by the network development policy. The Initial Proposals are unclear in exactly how the timing will work but the suspicion is that some expenditure will be incurred prior to the triggering of additional allowances. The trigger will then go through a two year delay as a consequence of the annual model iteration process.

124 CNI expenditure is subject to a specific reopener window, the first of which is in 2016/17. The current financial model includes best view expenditure £146m before this date, of which £83m is incurred in 2013/14. This expenditure will suffer a three year funding delay.

125 To illustrate the impact of funding delays we have modelled a scenario where the expenditure matches the currently modelled profile of allowances but for income purposes the allowances are delayed as follows:

(a) Connections allowances are delayed by four years

(b) No CNI allowances are received until 2016/17, at which point allowances match the currently modelled profile

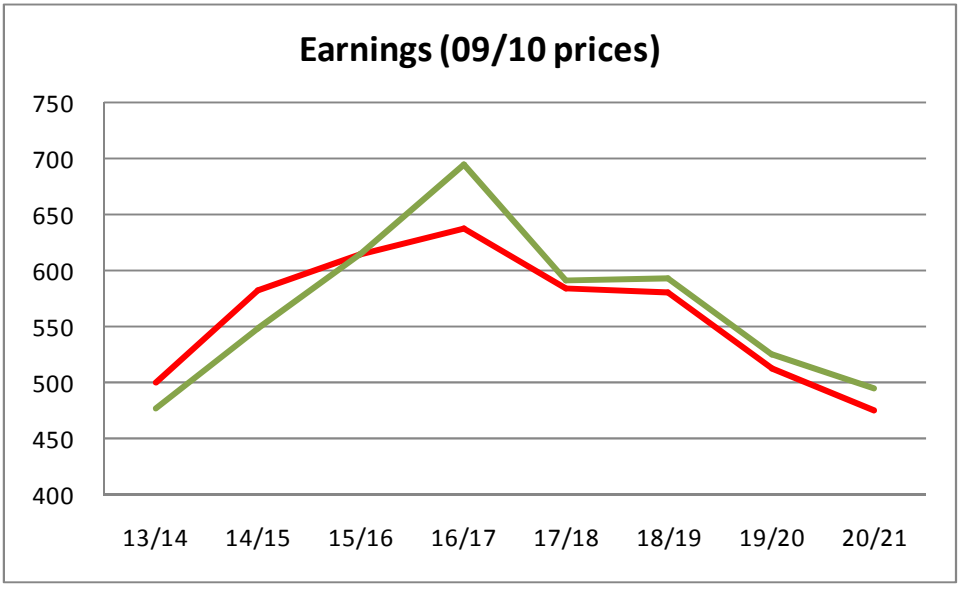
(c) Wider works volume driver allowances are delayed by two years.

126 The graphical results for the key metrics are included in appendix NGET4, with the earnings chart shown below. The red line reflects best view and the green line reflects the impact of delays in uncertainty mechanisms.

127 The credit metrics do not present the full extent of the impact of the delay in uncertainty mechanisms. While there is a visible deterioration in the early years and recovery later on, the credit metrics are getting considerable support from additional equity injections.

128 The 'best view' includes £1.4 billion of equity injections but when the delays from uncertainty mechanisms are factored in the value of equity injections increases to £2.1 billion with annual injections across the period 2014/15 to 2017/18. It is assumed that these equity injections will take place despite earnings being projected to fall by 29% from 2016/17 to 2020/21 and earnings by 2020/21 being lower than in any of the four years in which a notional equity injection takes place.

Earnings for NGET after considering delays from uncertainty mechanisms (compared to the 'best view')



129 As with NGGT, the funding delays are an intrinsic part of the Initial Proposals. Consequently any financeability assessment has to take the delays into account to be meaningful.

Importance of equity investors

130 The networks are financed by two types of investor, namely debt investors and equity investors. Ofgem's Initial Proposals include an assumption that NGET equity investors will provide a further £1.3bn[2] during the RIIO-T1 period. Several scenarios in this paper show even higher levels of equity injection. This funding is required to finance the investments required in the network. These equity injections are in addition to an

[2] As noted in paragraph 43 our own modelling identifies £1.4bn of equity injections after correcting the financial statements to include the omitted tax payments.

assumption in both businesses of significant retained earnings as a result of the assumed dividend payments being lower than the profits earned.

131 While debt investors typically focus on credit metrics, equity investors focus on dividends (both current dividends and future expected dividends (in the form of the share price)). Our business plan provided extensive evidence to explain why a stable dividend policy (such as 5% of the equity RAV) is important to investors and those arguments are not repeated here. Legally, dividends can only be paid if there are significant retained profits in the business and so, inevitably, equity investors look closely at profit and earnings measures.

132 If the investment proposition is not sufficiently attractive to equity investors they may well choose not to invest resulting in a failure to raise the necessary finance, with adverse consequences for the network and consumers.

133 This issue is particularly relevant given that the capital markets operate on a global scale and networks have to compete with alternative investment opportunities internationally.

NGET – the importance of earnings

134 Paragraph 4.2 of the Initial Proposals Finance Supporting document states that Ofgem includes two equity metrics in the financeability assessment.

(a) Regulated equity / EBITDA

(b) Regulated equity / Regulated earnings

135 However, the financial model does not even attempt to calculate accounting depreciation. Equally, the model only calculates cash tax whereas reported earnings would include the impact of deferred tax. This means the model does not contain the data required to calculate the earnings that would be viewed and experienced by equity investors.

136 In this context it is difficult to see how the needs of equity investors can have been adequately taken into account in Ofgem's assessment of financeability. The closest proxy available for earnings is the results on the 'Financial Statements Statutory' sheet but this uses regulatory depreciation of the RAV rather than accounting depreciation of the property plant and equipment (fixed assets) on the balance sheet.

137 We have added a calculation of accounting depreciation to the Ofgem model for the purposes of this paper. We have then assessed financeability from an equity investor perspective by reviewing the level of projected earnings and the equity ratios referred to in paragraph 134 above.

138 The equity ratios give a measure of profits per unit of equity invested, or more correctly units of equity investment required to achieve a pound of profits. If the ratio is rising equity investors are earning lower returns on their investment. Ideally the metrics should be falling or stable.

139 Ofgem's modelling of the initial proposals for NGET includes an assumption that £1.3bn of equity will be invested during the RIIO period of which £0.6bn is in 2017/18. However, the best view in the published financial model shows earnings after tax declining from £391.7 million in 2016/17 to £205.4m in 2020/21. Why would any equity investor inject a further £0.6bn into a business knowing that the earnings are expected to fall by 48%?

140 As mentioned above, these numbers use regulatory rather than accounting depreciation. When accounting depreciation is modelled profits for the 'best view' scenario fall by 25%

from 2016/17 to 2020/21 as explained in paragraph 45. When the delays from uncertainty mechanisms are factored in, the decline is 29%.

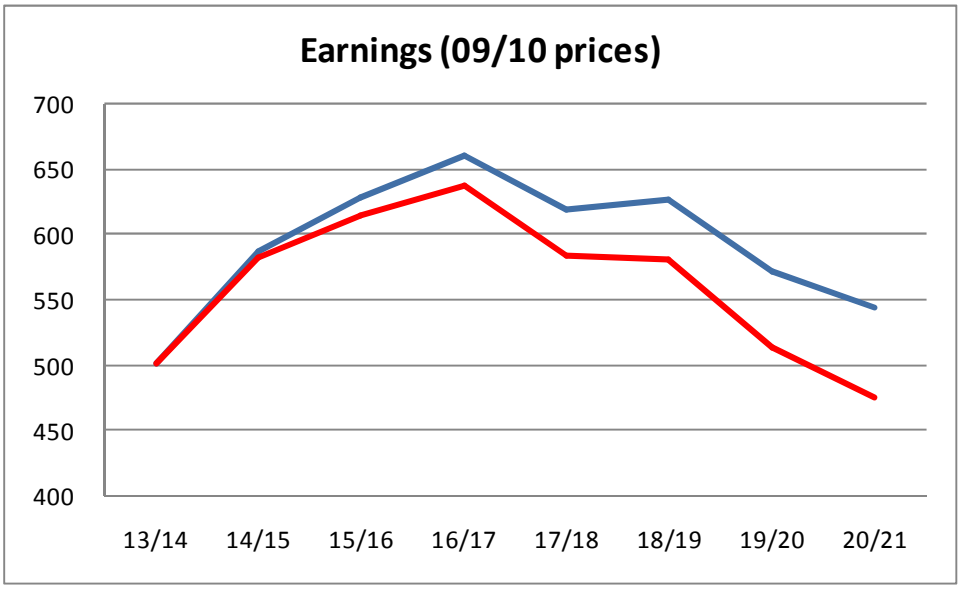
141 No investor, private or public, would consider such an earnings impact to be acceptable raising significant doubts as to the financeability of the proposed financial package.

NGET – transitional measures

142 One way to address the concerns raised above about the declining profile of earnings facing NGET would be to transition to the new 45 year asset life over 16 rather than eight years.

143 The impact of doing this is shown in appendix NGET5. Implementing the change in asset lives over 16 years rather than 8 stops the trend decline in the credit metrics. However, credit metrics are not the primary consideration. The chart below shows the impact on earnings. The red line transitions to a 45 year asset life over 8 years and the blue line does so over 16 years.

Earnings for NGET with a 16 year transition to new asset lives (compared to 8 years)



144 Earnings still decline in real terms but whereas a one period transition sees earnings decline by 25% from 2016/17 to 2020/21, with a two period transition the decline is reduced to 18%. An earnings drop of 18% when the RAV is growing is still not attractive to equity investors but is preferable to a 25% drop and does at least generate a higher profit in 2020/21 than at the start of RIIO-T1. The RAV is projected to grow by 64% in 2009/10 prices over the RIIO-T1 period.

145 Applying the transition over two rather than one regulatory period would help to address the earnings profile but, significantly, would not represent an economic transfer of value from consumers to networks as the decision would slow the rate of RAV growth reducing the longer term cost to consumers. Essentially, a two period transition can help to address the needs of investors without transferring any additional value to them.

NGGT – dividend restriction

146 NGGT does not include equity injections in the Ofgem choice of best view but this is largely due to the scenario that Ofgem has chosen to adopt which excludes a number of industry driven projects from the analysis which may well still happen. While the 'best view' does not include equity injections Ofgem explains in paragraph 3.64 of the Initial Proposals Finance supporting document that it has chosen to restrict the notional dividend to be based on the 'base view' RAV.

147 The rationale given for this approach is the sharp rise in investment levels. This explanation demonstrates a marked lack of consistency within the Initial Proposals and between networks.

148 Paragraph 3.17 refers to NGGT's investment rate as being "substantially lower" than the electricity networks where no such dividend restriction has been applied. That same paragraph goes as far as to say that NGGT's rate of investment is closer to that of the Gas Distribution networks where, again, no such dividend restriction has been applied. Based on Ofgem's own investment analysis NGGT falls in the pack as being lower than electricity and higher than distribution. The importance of dividends and rationale for applying a 5% yield (on the equity proportion of the RAV) applies equally as much to NGGT as any other network. In this context it is both illogical and unjustified to apply a restriction to NGGT.

149 We have modelled a scenario where we have removed the dividend restriction in the financial model. The results are shown in appendix NGGT5. They show that removing the restriction does impact on the credit metrics. The FFO / debt and FFO / interest (including inflation accretions) were already sub investment grade towards the end of the RIIO period under the best view. Removing the dividend restriction simply makes unacceptably poor metrics worse. PMICR and FFO / interest (excluding inflation accretions) both get closer to the bottom of the BBB range.

150 Based on the results shown we believe the dividend restriction has been entered simply to support the credit metrics. This misses the point. The poor credit metrics are not the result of applying a dividend assumption that is consistent with that of the other networks. The poor credit metrics are the result of an inadequate financial package.

151 Neither does the dividend restriction reduce charges to consumers. Removing the restriction does not cause equity injections to be triggered. If anything, the restriction reduces debt causing a lower tax shield which increases the tax allowance included in revenues.

152 It is clear therefore that the dividend restriction is unwarranted and poorly justified and increases costs to consumers.

Sensitivity analysis

153 While the previous section highlighted deficiencies in the financeability assessment for the 'best view' scenario this section takes our concerns further and considers the stress testing of the proposed financial package under credible scenarios.

154 As explained in paragraph 27, Ofgem has clarified that their stress testing of the proposed financial package covered:

(a) Over / under spend against totex

(b) The future profile of the cost of debt index

(c) The proportion of debt that is index linked

155 While we have not seen the results of this analysis we do not take issue with it and agree that each item is worthy of consideration. For example, the cost of debt index is based on an average of A and BBB rated entities. If the financial package is expected to generate a rating of BBB we would expect sensitivity analysis to be performed to understand the impact of setting the cost of debt allowance lower than the cost of debt than can be expected to be incurred. This issue is discussed further in our response to the consultation questions.

156 When asked, Ofgem confirmed that the list above represents a full list of the stress testing performed. Our concern is that the analysis performed by Ofgem is insufficient because it has not considered the impacts of:

(a) Additional uncertainty mechanism expenditure

(b) Different levels of inflation

157 These are on top of the results in the earlier section on:

(a) Delays in UM funding

(b) Missing expenditure (RIIO-T2 outputs)

158 In this section we consider alternative scenarios for uncertainty mechanisms expenditure and inflation rates. We also present a couple of credible combined sensitivities covering a number of the issues covered in this paper.

Uncertainty mechanism expenditure

159 If additional (or less) load related investment is required in response to industry requirements then the uncertainty mechanisms should trigger additional (or lower) allowances. While these mechanisms are intended to ensure that the additional investments are funded, varying levels of capex will impact on the financeability of the network.

160 Given the uncertainty facing the energy industry over the next decade and beyond (both for electricity and gas) there is clearly the potential for industry driven expenditure requirements to be materially different from Ofgem's best view.

161 Consequently we have stress tested the initial proposals by looking at different levels of load related investment. For the purposes of this stress testing we have adopted the same simplifying assumption as the Ofgem model, namely that there are no delays in the operation of the uncertainty mechanisms and that the mechanisms are perfectly calibrated such that they give allowances that match the expenditure.

NGGT

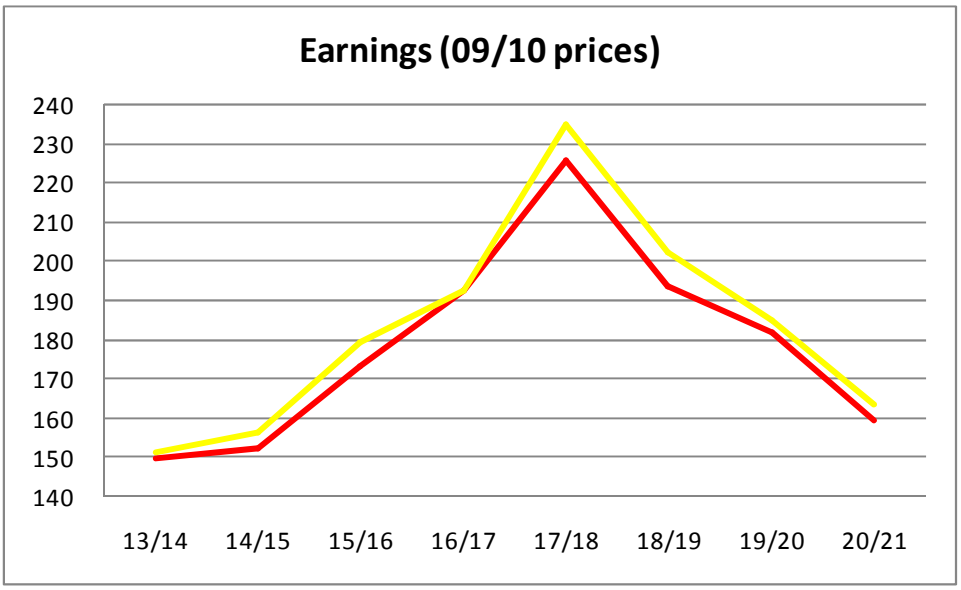
162 In the case of NGGT we have modelled the impact of adding the expected expenditure of one of the larger projects from our business plan on to the Ofgem best view. It is not clear to us exactly what mix and profile of projects the Ofgem best view represents but our scenario can either be seen as adding one big project or a combination of a few smaller projects. The value concerned is a little under £1bn with the bulk of expenditure incurred from 2015/16 onwards. This is consistent with receiving one or more additional auction signals in the early years of RIIO-T1.

163 As explained above we have assumed that allowances and expenditure are equal both in terms of value and timing, i.e. we have ignored the timing issues discussed in paragraphs 109 to 118. The results are presented in appendix NGGT6.

164 For the scenario adopted, the credit metrics are broadly similar but fall closer to or further below the BBB threshold depending on the metric. Significantly though, this scenario requires equity injections of £0.5 billion in 2019/20. The 'best view' doesn't assume equity injections but this particular scenario demonstrates the clear potential for equity injections to be required and the need, therefore, to ensure the needs of equity investors are given sufficient weight.

165 The chart below shows the earnings profile of NGGT. The red line is the best view scenario based on the published financial model and the yellow line includes the additional £1 billion of capex.

Earnings for NGGT with additional investment (compared to the 'best view')



166 We have a picture of low BBB or sub investment grade metrics despite raising substantial new equity. Without the additional equity, credit metrics would be even worse. There has to be considerable doubt though as to whether investors would choose to invest this

additional £0.5 billion since earnings for NGGT are projected to fall by 30% in 2009/10 prices from 2017/18 to 2020/21.

167 Such an equity call would resemble one of a company in distress. To make the investment proposition more attractive to investors would require an improvement in the general level of the credit metrics (so equity investors don't simply feel they are bailing out debt investors) and an increase in the WACC to redress the current imbalance in the risk-reward trade off. This latter issue is covered in more detail in our separate issue paper on the relative risk assessment.

NGET

168 For NGET we have modelled a Slow Progression scenario. This requires less investment than the best view but more than the base view. The reduction in investment from the best view is circa £300m.

169 The credit metrics presented in NGET6 are better than those experienced in the 'best view'. This is because this scenario results in equity injections of £1.8 billion compared to the £1.4 billion in 'best view' despite requiring less investment. This counterintuitive result (lower capex but higher equity injections) demonstrates the sensitivity of the financial package to the equity injection threshold in the financial model.

Inflation

170 Ofgem has confirmed that no sensitivities have been performed for alternative rates of inflation. In part this is based on a mistaken belief that the indexation of revenues (and the RAV) makes the impact immaterial.

171 The Ofgem financial model includes a long run RPI inflation assumption of approximately 2.5% and the credit metrics presented so far in this paper have used the rates within Ofgem's model. However, there is a degree of uncertainty around future inflation levels. The most recent HM Treasury report on 'Forecasts for the UK economy: a comparison of independent forecasts', dated August 2012, includes a medium term forecast of 3.0% for 2015 and 3.1% for 2016 despite recent movements in gilt rates. In the light of this consensus of economic forecasts it seems appropriate to stress test the proposed package with inflation figures of at least 3.0%.

172 Inflation matters because it has a disproportionate impact on interest costs. With a real cost of debt of 3.0% and inflation of 2.5%, the nominal interest cost would be 5.6%[3] whereas with inflation of 3.0% the cost would be 6.1%[4], an increase in relative terms of over 9% for a 0.5% absolute rise in inflation. Changes in inflation can therefore make a material difference to the interest cover ratio metrics[5] and the financeability of a network.

173 Based on the consensus economic forecasts we have stress tested the financial package by using a more realistic assumption of 3.0%. Additional sensitivities could be performed for other projected rates of inflation but given that differences in the methodologies for calculating RPI and CPI generate RPI results that are systematically higher than CPI, and the Government target for CPI inflation is 2.0%, we consider a range of 2.5% to 3.0% to be sufficiently illustrative.[6]

[3] (1+2.5%)*(1+3.0%)-1
[4] (1+3.0%)*(1+3.0%)-1
[5] When index linked debt is considered the impact will be less but still significant for some metrics.
[6] Our main response to the consultation discusses the need for a re-opener or other uncertainty mechanism to address the outcome of the ONS consultation on changes to the formula for the retail price index.

NGGT

174 The results are summarised in the table below and in graphical form in appendix NGGT7.

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGGT Best view with Ofgem's RPI inflation	Mid BBB falling to sub investment grade	Low A falling to mid BBB	Low BBB to sub investment grade	Mid to low BBB
	Declining trend	Declining trend	Declining trend	Declining trend
NGGT Best view with 3.0% RPI inflation	Mid BBB falling to sub investment grade	Low A falling to low BBB	Sub investment grade	BBB to BBB/BB threshold
	Declining trend	Declining trend	Declining trend	Declining trend

175 Simply changing the RPI inflation by 0.5% results in the key credit metrics either being below investment grade or very low BBB. A long run inflation rate of 3.0% is well within the realm of credible scenarios that the financial package needs to be robust for.

NGET

176 The results are summarised in the table below and in graphical form in appendix NGET7.

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGET Best view (Ofgem RPI)	A-	BBB+/A- to mid BBB	High/mid BBB	A
	Declining trend	Variable	Stable	Stable
NGET Best view (3.0% RPI)	A- / BBB+	High to low BBB	High/mid BBB to mid/low BBB	A to BBB
	Declining trend	Declining trend	Declining trend	Declining trend

177 The credit metrics are not as poor for NGET with 3.0% RPI inflation as they are for NGGT but the direction of the impact is similar. The higher rate of inflation results in a declining trend for all of the metrics.

Combined sensitivity

178 As explained above, we have concerns both that the financeability assessment of the central scenario(s) reviewed by Ofgem is flawed, and that the stress testing performed omitted key sensitivities.

179 The results presented in this document so far have considered one issue at a time. However, in reality adjustment should be made for all of the issues identified with the central scenario and sensitivities should then be performed on those revised results.

180 For each of NGET and NGGT we have modelled a couple of highly credible scenarios combining some of the issues covered earlier in this paper to demonstrate what may actually happen if things turn out as expected in the Initial Proposals.

NGGT

181 The NGGT scenarios start with the Ofgem best view with expenditure equal to allowances. This has then been amended as follows:

(a) We have reflected the delays inherent in the uncertainty mechanisms as described in paragraphs 109 to 118.

(b) We have included the tax cash flows relating to revenues from legacy incentives and the adjustments from previous price controls

(c) We have removed the restriction on dividend payments and restored the generic assumption used for all other networks

182 We have presented this scenario using two different assumptions for RPI, one at with Ofgem's RPI assumption and one at 3.0%.

183 The results can be seen in appendix NGGT8 and can be summarised as follows.

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGGT Best view	Mid BBB falling to sub investment grade	Low A falling to mid BBB	Low BBB to sub investment grade	Mid to low BBB
	Declining trend	Declining trend	Declining trend	Declining trend
NGGT sensitivity (2.5% RPI)	Sub investment grade	BBB	Sub investment grade	Low / mid BBB
	Variable	Variable	Variable	Variable
NGGT sensitivity (3.0% RPI)	Sub investment grade	Low BBB (dips below BBB)	Sub investment grade	Low BBB / sub investment grade
	Variable	Variable	Variable	Variable

184 Both sensitivities result in sub investment grade results on FFO / debt and the FFO / interest (including inflation accretions) measure preferred by S&P. It is also clear that the other metrics (adjusted interest cover ratio and the more relaxed FFO / interest metric) are around the BBB / sub investment grade threshold with inflation at 3.0% and not much better at lower rates of inflation.

185 The preceding sections explained the relative impact of various factors combined in this sensitivity. The least significant impact was from the dividend restriction. The delays from uncertainty mechanisms is not just an interesting sensitivity, it more closely reflects the realities of the cash flows expected with the current design of the various uncertainty mechanisms, whereas inflation is beyond the control of either the networks or Ofgem.

186 Since this scenario more closely reflects the Initial proposals we consider it a better guide to the expected financial position of the notional network. Based on the results above we cannot see how the network could be deemed to be comfortable investment grade and would question whether it is investment grade at all.

187 One thing that could improve the credit metrics is assuming expenditure in line with Ofgem's view of efficient costs. We have therefore taken the most optimistic of the two sensitivities above (i.e. the one with Ofgem's assumption of inflation) and assumed expenditure is in line with Ofgem's view of efficient costs and therefore lower than allowances. The results are presented in appendix NGGT9 and summarised below

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGGT Best view	Mid BBB falling to sub investment grade	Low A falling to mid BBB	Low BBB to sub investment grade	Mid to low BBB
	Declining trend	Declining trend	Declining trend	Declining trend
NGGT Sensitivity with Ofgem RPI and costs	Sub investment grade / low BBB	BBB	Sub investment grade	Low BBB
	Variable	Variable	Variable	Variable

188 The results are not significantly altered by the view of expenditure applied. At best, some rating agencies may focus on the more generous measures and conclude that the package is low BBB. However there is a significant risk that the metrics could be deemed sub investment grade, particularly by any agency that places weight on FFO / debt or includes inflation accretions in the denominator of FFO / interest.

189 As explained above, we consider these scenarios to be a far more accurate representation of Initial Proposals.

NGET

190 As with NGGT, we have modelled a number of highly credible scenarios combining some of the issues covered earlier in this paper to demonstrate what is likely to actually happen if things turn out as expected in the Initial Proposals.

191 We have amended the Ofgem best view as follows:

(a) We have reflected the delays inherent in the uncertainty mechanisms as described in paragraphs 119 to 129.

(b) We have included the tax cash flows relating to the previous price control adjustments included in allowed revenues

(c) We have included the necessary expenditure in the RIIO-T1 period relating to outputs delivered in RIIO-T2.

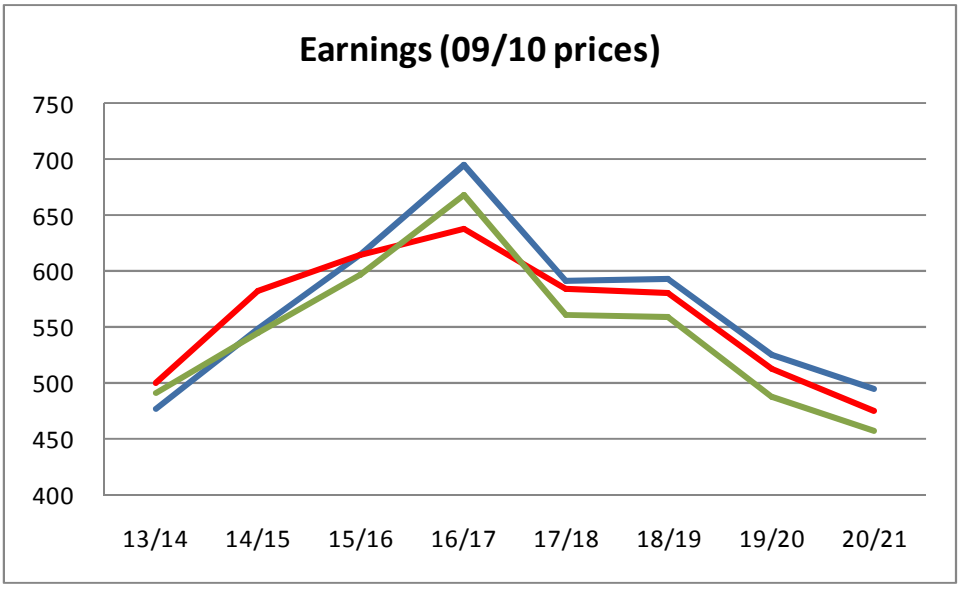
192 We have presented this scenario using two different assumptions for RPI, one with Ofgem's modelling assumption where long run inflation is 2.5% (blue line) and one with inflation of 3.0% (green line). The red line in the chart below represents the 'best view'.

193 The results can be seen in appendix NGET8 and can be summarised as follows:

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGET Best view	A-	BBB+/A- to mid BBB	High/mid BBB	A
	Declining trend	Variable	Stable	Stable
NGET sensitivity (Ofgem RPI)	A-	BBB (briefly A-)	Mid to high BBB	A
	Variable	Variable	Variable	Variable
NGET sensitivity (3.0% RPI)	A- / BBB+	BBB (briefly A-)	Mid BBB	A to BBB
	Variable	Variable	Declining trend	Declining trend

194 The credit metrics generally remain at an acceptable level but the higher rate of inflation does introduce a declining trend which may put the credit rating at risk. Importantly, however, both sensitivities rely on an increase in equity injections to £2.1 billion. It is difficult to assume equity investors would provide the additional finance knowing that the earnings of the network are set to decline significantly.

Earnings for NGET combined sensitivities (compared to the 'best view')



195 As with NGGT, we have also presented a scenario which reflects the realities of the Initial Proposals (delays in funding for RIIO-T2 output spend and from uncertainty mechanisms) and combines these with Ofgem's view of efficient costs and modelling assumption for inflation. The results can be found in NGET9. The credit metrics are improved slightly but the value of equity injections required is still £2.1 billion.

Sustainability of package

196 Within this section we assess the sustainability of the proposed financial package, with a focus on the Gas Transmission proposals. Ofgem has confirmed to us that their financeability assessment covered the eight years of the RIIO-T1 period. However, the March 2011 strategy document clarified that it was central to RIIO that the regulatory settlement should be based on robust principles that ensured the network companies were financeable on the long term. Paragraph 4.4 of that document stated

"Central to the RIIO model is that we will base our regulatory settlement on robust principles that will ensure the network companies are financeable in the long term."

197 While the focus of the financeability assessment would be expected to be on the forthcoming eight year period, it is still important to assess the sustainability of the package by, for example, reviewing the impact of any short term measures providing financeability support. Where these are unlikely to be enduring it is appropriate to assess their impact.

198 We recognise that there is no direct or even implied commitment from Ofgem that the RIIO-T2 financial package should resemble that set for RIIO-T1. Nevertheless, energy networks are long term businesses and investors can only look to the current proposals as a guide to the future. In this regard it is reasonable to assess the current proposals to consider whether they represent a sustainable financeable solution.

199 We do this in two ways as follows:

(a) In a theoretical way by reviewing the level of gearing required to achieve the credit metrics that ratings agencies would ordinarily expect of a comfortable investment grade network.

(b) Using financial modelling to consider whether the initial proposals represent a sustainable financial package solution by removing the transitory adjustments to income included within the current proposals. This then reflects the underlying / long term impact of the proposed package.

Theoretical review of sustainability of the financial package

200 In the Finance Annex to our Business Plans, we considered how the financial ratios used by the rating agencies to assess financeability will impose constraints on financial parameters in the longer-term as well as during RIIO-T1.

201 The approach was based on that set out in the joint Ofgem/Ofwat paper "Financing Networks: A discussion paper" published in February 2006, and it can now be updated to reflect the financial package proposed in Initial Proposals.

202 In our Business Plan this theoretical approach was applied to derive implied constraints for the RIIO-T1 control as well as in the longer term. As the financial ratios during RIIO-T1 are considered in more depth elsewhere in this paper the theoretical approach has only been applied here to derive the constraints that will apply in the longer term.

203 In our business plan, the constraints were expressed in 3 different ways: as a minimum cost of equity; as a maximum gearing; and as a maximum "Average Asset Life Remaining" or "AALR" (i.e. RAV/Regulatory Depreciation). In the interests of simplicity, the constraints

are expressed here only as a maximum gearing, assuming an AALR in the longer term of 22½ years (consistent with the RIIO asset life of 45 years) and a cost of equity of 6.8% or 7.0% (as has been proposed for NGGT and NGET respectively for RIIO-T1).

204 The other parameter values that have been assumed in recalculating the constraints are:

(a) Inflation of 3.0% - whilst RPI would be expected to exceed 3.0% in some periods (and would give a lower maximum gearing), this is a plausible value to use for this analysis;

(b) Cost of Debt (based on the index) of 3.0% - if the cost of debt is higher, the constraints imposed by the ratios would be tighter (i.e. maximum gearing would be lower);

(c) 25% of debt is assumed to be index-linked.

205 In the earlier analysis, we followed the method of the 2006 paper and considered four ratios: FFO/Interest, RCF/Debt, PMICR and an explicit gearing constraint (Net Debt/RAV). As RCF/Debt does not appear to a principal ratio used by the rating agencies, and the explicit gearing constraint does not require calculation, the updated analysis here considers FFO/Interest and PMICR only.

206 The table below shows the resulting constraints on gearing under the assumptions given above. As explained at paragraph 53 to 59 above, Ofgem appears to consider that interest accretions on index-linked debt should be omitted from the denominator in the FFO/Interest ratio, although we understand that the only agency which prefers to use this ratio for the UK energy networks (S&P) does include these accretions. The table below shows the gearing constraint under both approaches, i.e. shows the maximum gearing which, combined with the other assumptions set out above, gives an acceptable value of FFO/Interest or PMICR, using maximum values for these ratios of 3 and 1.6 respectively, consistent with the 2006 paper.

	Long-term constraint, Gas TO		Long-term constraint, Electricity TO	
	Including accretions	Excluding accretions	Including accretions	Excluding accretions
FFO/Interest ≥ 3	≤ 51%	≤ 57%	≤ 51%	≤ 57%
PMICR ≥ 1.6	≤ 50%	≤ 55%	≤ 51%	≤ 56%

207 The analysis shows that, in the longer term, gearing will need to be lower than has been proposed for RIIO-T1, particularly for Gas TO. Moreover, given the higher value of AALR or RAV/depreciation that will apply for Gas TO during RIIO-T1, the results imply that the maximum gearing would be expected to be even lower for Gas TO during RIIO-T1 than the values in the table above.

208 The results are, of course, dependent on the assumptions made, and in particular:

(a) If cost of debt is higher than assumed, gearing will need to be lower;

(b) If inflation is higher, gearing would need to be lower.

(c) Higher minimum values of FFO/Interest and PMICR would lead to tighter constraints and require gearing to be lower. The required values for these ratios used in the table above were taken from the 2006 Ofwat/Ofgem paper and would now be considered representative of the middle of the values expected for a BBB rating[7]. The top of BBB, which would be more consistent with Ofgem's proposed cost of debt index allowance set to the average of the A and BBB iBoxx indices, would equate to FFO/Interest of 3.5 (or even 4) and a PMICR of 2.0, whilst the bottom of BBB would equate to an expected FFO/Interest ratio of 2.5 and a PMICR of 1.4[8]. The gearing constraints that equate to these ratio values are as follows:

	Long-term constraint, Gas TO		Long-term constraint, electricity TO	
	Including accretions	Excluding accretions	Including accretions	Excluding accretions
FFO/Interest≥3.5	≤ 45%	≤ 50%	≤ 45%	≤ 51%
PMICR ≥ 2.0	≤ 50%	≤ 55%	≤ 51%	≤ 56%
FFO/Interest≥2.5	≤ 59%	≤ 65%	≤ 59½%	≤ 66%
PMICR ≥ 1.4	≤ 55%	≤ 60½%	≤ 56%	≤ 61%

209 In addition, the analysis assumes that regulators are able to estimate accurately the cost of capital for a regulated business, and that the companies are always able to meet regulatory targets for operating and capital efficiencies. In practice some margin needs to be allowed for variations between regulatory assumptions and actual values in both these areas, as it is insufficient for credit metrics only just to meet required levels under a central scenario with no margin for variances. The metrics must also have acceptable values under plausible scenarios.

210 As explained in our previous Business Plans, given the simplifications that are implicit in the Ofgem/Ofwat methodology that has been followed here the methodology is unable to take into account any improvements in financial ratios that might result from applying a capitalisation ratio that is lower than the true capex to totex ratio. However, we understand that the agencies may in some cases take account of such financeability adjustments so that they wouldn't in fact improve the ratios, and in any case it would be inappropriate to rely on such adjustments in the longer-term. Thus, the long-term implications of the analysis presented here are not invalidated by this limitation in the methodology.

211 Taking these factors and results into account, the analysis shows that:

(a) even if rating agencies are assumed to exclude interest accretions from the denominator of the FFO/Interest metric gearing will need to be 55% or lower in the longer term as well as during RIIO-T1 unless asset lives are reduced or a higher cost of equity is allowed. A similar constraint on gearing is also imposed by the PMICR ratio, even if the benefit to this ratio of index-linked debt is similarly taken into account; and

[7] See Figure 4.1 in the March 2011 RIIO-T1 and RIIO-GD1 Financial Issues Decision document
[8] *Ibid*

(b) if interest accretions are included in working out the FFO/Interest metric, gearing will need to be even lower (no higher than 50%) unless asset lives are to be reduced or a higher cost of equity is allowed than has been proposed for RIIO-T1 in the Initial Proposals.

Removal of transitory income

212 A second way of assessing the sustainability of the financial package is to review the financeability of the underlying package, i.e. without transitory cash flows that would not be expected to endure.

213 The cash flows that do not endure include:

(a) Pension true up funding

(b) Capex incentive income (NGET only)

(c) Adjustments from previous controls

214 We have not treated the revenue driver income as non-enduring as it includes an element of enduring income to remunerate capital investment. However, this income will include an element of non-enduring incentive performance.

215 We have modelled the central scenario but excluded the non recurring income items identified above. This will identify whether these transitory cash flows are masking an underlying problem with the sustainability of the financial package.

NGGT

216 The results are summarised in the table below and in graphical form in appendix NGGT10.

	FFO / Debt	PMICR / AICR	FFO Interest cover (S&P)	FFO Cash Interest cover
NGGT Best view	Mid BBB falling to sub investment grade	Low A falling to mid BBB	Low BBB to sub investment grade	Mid to low BBB
	Declining trend	Declining trend	Declining trend	Declining trend
NGGT Best view excl. transitory income	Low BBB falling to sub investment grade	Mid BBB to sub investment grade	Sub investment grade	Low BBB to sub investment grade
	Declining trend	Declining trend	Declining trend	Declining trend

217 All key metrics are below investment grade for prolonged periods once the benefit of the temporary income recoveries relating to previous price controls is removed. This provides further evidence that the financial package is not sustainable in the long term.

218 We consider it unlikely that Ofgem would provide additional financeability support if the adjustments from previous price controls were reducing income as a result of inefficiency

in previous periods. Consistency therefore dictates that positive cash flows should also be excluded from the financeability assessment.

NGET

219 The results are summarised in appendix NGET10. Unlike in NGGT, NGET does not rely so heavily on the temporary income streams to support the credit metrics. However, this is largely because equity injections increase significantly to £2.2 billion to provide credit support.

220 One thing illustrated by these scenarios is that, with the equity injection threshold set at a sensible level (i.e. 2.5% above notional gearing), equity injections flex in response to changes in the various input assumptions far more than the credit metrics. In this regard, the equity injections ensure that the credit metrics remain reasonable. Applying a similar tolerance of 2.5% to NGGT, or even a 1% threshold, may help to improve the credit metrics for NGGT.

Sustainability of Gas Transmission financial package

221 Notwithstanding our grave concerns that the Gas Transmission financial package is not financeable during the RIIO-T1 period, once the adjustments described in this document have been considered, we also believe that the package is not sustainable in the long term as demonstrated by the analysis above.

222 If Ofgem retain the current proposals they are likely to encounter a financeability problem with any similar package for RIIO-T2. Realistically, the notional level of gearing is likely to have to fall to a level closer to 55%.

223 If the Gas Transmission network is expected to face a significant increase in investment in RIIO-T2 it may be considered rational to move to a lower gearing financial structure. However, if the investment in the business is stable, or possibly even declining, it may prove difficult to explain why gearing needs to fall for a business that is either expected to remain at a stable level of RAV or possibly even have a falling RAV.

224 Under these circumstances, a lower gearing assumption is likely to require an equity injection at the start of RIIO-T2 to achieve a financeable network. Having to raise equity for a stable or declining business would imply distress to investors and is unlikely to be acceptable.

225 It is imperative that Ofgem should not set a financial package for RIIO-T1 which is not only unfinanceable during RIIO-T1 but which also can be expected to create a problem at the end of the RIIO-T1 control. A more appropriate solution would be to adopt a sustainable financial package now, one that is appropriate both for the RIIO-T1 period and beyond. A notional gearing level of 55% would help to achieve this objective.

Conclusions

226 The Ofgem financeability assessment raises a number of concerns, namely:

(a) A lack of transparency with regard to Ofgem's financeability assessment

(b) Accounting errors in the model such that credit metrics based on the financial statement data in the model are incorrect and misleading

(c) A failure to reflect in the financeability assessment the detail of the regulatory package proposed in Initial Proposals, particularly the delays implicit in some of the uncertainty mechanisms

(d) The poor projected credit metrics for NGGT, and non sustainable nature of the proposed package, which indicate that the proposals are not financeable using Ofgem's own assessment criteria

(e) A failure to give sufficient weight to the needs of equity investors

(f) The inadequate scope of the stress testing performed by Ofgem on the financial package

Lack of transparency

227 Prior to the publication of the proposals we (and other networks) engaged with Ofgem and expressed concerns that the credit metric calculations in previous versions of the model were incorrect. Ofgem has since removed the calculations from the financial model making it impossible for stakeholders to understand the basis on which Ofgem have concluded the Initial Proposals are financeable.

228 RIIO has introduced a number of changes to the regulatory regime such as the totex approach etc which may have a material impact on how credit rating agencies view the regulated networks and calculate the metrics. This confusion is implicitly recognised by Ofgem in their decision to present two sets of financial statements.

229 Ofgem has stated informally that stakeholders can use the financial model to perform their own assessment. We have demonstrated that the financial model contains a number of errors that render the financial statements incorrect. We have also demonstrated that the detail of the Initial Proposals is quite complex and needs to be fully understood and reflected in any assessment performed. We therefore disagree that stakeholders can simply perform their own analysis.

230 Even if a user overcomes these issues, this misses the point which is that we do not understand the basis on which Ofgem have concluded the Initial Proposals are financeable in the light of our own assessment, particularly for NGGT.

231 We do not understand how stakeholders can be expected to meaningfully comment on the proposals when such material information is deliberately withheld.

232 Ofgem have stated since initial proposals that ratio analysis only accounts for a part of their assessment of financeability. However, the other elements that inform Ofgem's analysis have not been defined and so are clearly not transparent, nor have they been subject to any consultation. It is inconceivable that additional elements can be introduced

at this stage of the process without breaching the commitments to transparency and consistency made at the very start of the RIIO process.

Accounting errors

233 Even if stakeholders do try to perform their own assessment, any such assessment will be misinformed due to a number of accounting errors in the financial model.

234 There are material tax cash payments relating to the regulated business, particularly in NGGT, which are not calculated in the model and so are excluded from the financial statements.

235 Also, for any scenario where the costs do not exactly match allowances, either in value terms or through timing differences, the financial statements in the model are incorrect. They fail to capture the correct values for revenues, costs, interest expense and the debt balance thus rendering the financial statements in the financial model incorrect and misleading.

236 These accounting errors have been discovered since the publication of Initial Proposals so it is likely that the assessment performed in developing Initial Proposals was misinformed.

Not reflecting the detail of Initial Proposals

237 Not only does the financial model fail to capture the correct data to inform a financeability assessment but we have also seen no evidence that the detail of the Initial Proposals has actually been understood before performing a financeability assessment.

238 Ofgem's model includes numbers for a 'base view' and 'best view' where the best view represents Ofgem's view of what may happen. Unfortunately, this view fails to acknowledge and recognise that the design of the various uncertainty mechanisms is such that there will be delays in the setting of allowances to use in the revenue calculations.

239 These delays are not just of academic concern. There is no way, with the current proposals, that allowances could be received in time to provide revenues to fund the expenditure. In the case of NGGT, over £0.5 billion is projected by Ofgem to be spent in the first three or four years of the RIIO-T1 period. No income will be received to fund this expenditure until 2016/17 or 2017/18 at the earliest as the income depends on specific re-opener windows or the mid-period review.

240 As well as ignoring the delays built into the uncertainty mechanisms, we believe Ofgem has ignored the expenditure that Ofgem has disallowed because it relates to the delivery of RIIO-T2 outputs. Ofgem acknowledge that this expenditure will be incurred in RIIO-T1 but no allowance (and revenues) will be received in the RIIO-T1 period, other than as a result of a perceived 'over-spend' in the totex incentive mechanism.

NGGT

241 The results of the modelling presented in this issue paper demonstrate very clearly that the financial package for NGGT in particular is not financeable during RIIO-T1 and not sustainable in the future.

242 Once adjustments are made for the accounting errors in the model, and the impact of delayed funding from uncertainty mechanisms is taken into account, the credit metrics either fail to achieve the level of investment grade or, if a generous selection of metrics is adopted, just about manage to achieve a low BBB rating.

243 It is clear therefore that the metrics are not comfortable investment grade and against Ofgem's own criteria as set out in their decision document, the network does not appear to be financeable. Informally, Ofgem has suggested that poor credit metrics do not imply an unfinanceable package since they are not the only factor considered by the rating agencies. However, having set out the process by which Ofgem would assess financeability in the RIIO decision document (and discussed in this document in paragraphs 14 to 23) it would represent a departure from the "transparent and stable approach to assessing financeability" that Ofgem committed to in that RIIO decision document to now disregard the poor credit metrics observed.

244 As bad as the metrics are during the RIIO-T1 period they enjoy substantial support from a number of income streams relating to the previous price control. Without this support all credit metrics (including the more lenient ones) trend to sub investment grade indicating that the package does not represent a sustainable financial structure.

245 This conclusion is supported by the theoretical approach to assessing financeability previously used by Ofgem and Ofwat in their 2006 joint paper on 'Financing Networks: A discussion paper'.

Equity investors

246 While the credit metrics of NGET are generally sufficient, this is only because of an assumption that equity investors will provide additional new finance. While this assumption has been made, no validation appears to have been performed as to whether such an assumption is reasonable.

247 We find that the real earnings of NGET are expected to decline significantly during the latter half of the RIIO-T1 period so investors are being asked to invest more of their money to receive lower profits.

248 We do not find this assumption credible and can only conclude that insufficient weight has been given to the needs of equity investors.

Stress testing

249 Based on the Initial Proposals and informal engagement with Ofgem, insufficient stress testing has been performed of the proposed financial package.

250 Within this paper we demonstrate that different levels of expenditure (funded by uncertainty mechanisms) and / or different rates of inflation can make a material difference to either or both the credit metrics and / or levels of equity injection required.

Ofgem engagement with credit rating agencies

251 Ofgem has informed us that they have discussed financeability with the rating agencies and are comfortable that the networks are comfortable investment grade. However, informal discussions with the rating agencies are not the basis on which Ofgem stated it would perform the financeability assessment and at no point has Ofgem consulted on using this approach as an alternative or addition to their previously set out position. Furthermore, no details of these discussions have been made public.

252 Also, we do not believe much comfort can be taken from these discussions as we do not believe they took place in full knowledge that:

(a) No account had been taken of the material funding delays implicit in the uncertainty mechanisms, i.e. the modelling did not actually reflect the detailed mechanics of the Initial Proposals.

(b) The financial statements in the model are incorrect and so cannot be used to generate the numbers required to calculate credit metrics.

(c) Assumptions were being made that additional equity would be provided despite a projected decline in earnings.

Cost of debt allowance

253 Our main response refers to the potential inconsistency between the outcome of the financeability assessment and the cost of debt allowance. The cost of debt allowance is based on an average of A and BBB rated debt. A financeability package which expects the network to be at the border between A- and BBB+ would be consistent with this allowance.

254 However, if the financial package targets a lower rating, such as BBB, this would be inconsistent with the debt allowance and would implicitly fail to finance the efficient finance costs of the network (since the debt allowance would be insufficient to cover the expected interest costs). Not only would this fail to finance the network but it would also put further pressure on the credit metrics.

Summary

255 In light of the findings in this paper we cannot see how Ofgem can be deemed to have met their obligations to have regard to the financeability of the networks and can only draw one (or both) of two conclusions, either

(a) Accounting errors and a failure to fully reflect the detail of the uncertainty mechanisms misinformed Ofgem's assessment such that an updated assessment would result in a different conclusion, or

(b) Ofgem has been complacent in its approach to financeability by failing to robustly apply the assessment criteria they previously set out, failing to give due consideration to the needs of equity investors, and possibly even a failure to consider the financeability of the notional networks as separate entities. Such a message would be worrying for both debt and equity investors.

256 Between now and Final Proposals Ofgem need to ensure that subsequent financeability assessments appropriately reflect the timing of when allowances and revenues would actually be received, particularly for uncertainty mechanisms, and to add functionality to capture the correct data to inform their assessment. They also need to transparently apply the assessment criteria they set out in their RIIO decision document and to test any revised proposals against a range of plausible scenarios.

257 We believe that an updated assessment would establish that the package proposed for NGGT is not financeable, either during RIIO-T1 or longer term, and that a lower level of gearing, such as 55% is required.

258 Gearing of 55% may well not be sufficient however and Ofgem may wish to consider whether some of the uncertainty mechanisms that rely on a re-opener or mid period review should be based on an ex ante allowance which is subsequently updated through the uncertainty mechanisms rather than the current approach of providing no funds until a review has been completed.

259 A reduction in the modelling assumption for the equity injection threshold from 5% to 2.5% or less may also help to alleviate financeability concerns while the removal of the unwarranted restriction on the NGGT dividend may go some way towards dispelling any suggestion that Ofgem has been complacent in its attitude towards equity investors.

260 With regard to NGET, financeability is contingent on the assumption that additional equity will be provided. Ofgem needs to demonstrate that they recognise the importance of the role equity investors play and the requirement to attract equity. In this regard two measures which may restore some of the current imbalance include:

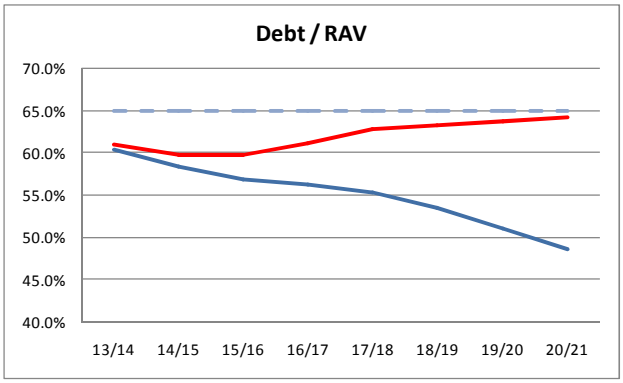
(a) An increase in the WACC to make the investment proposition more attractive to equity investors

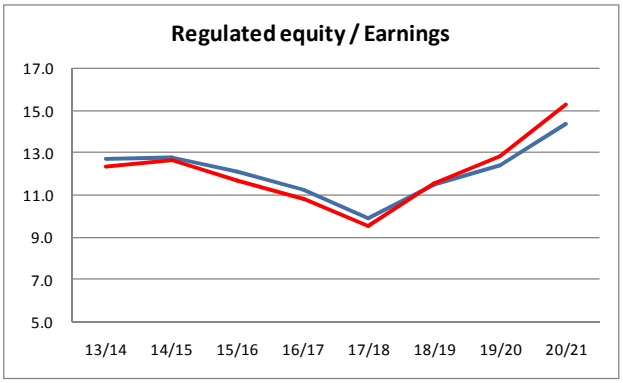
(b) Extending the transition to 45 year asset lives in NGET to 16 rather than 8 years to reduce the scale of the decline in earnings

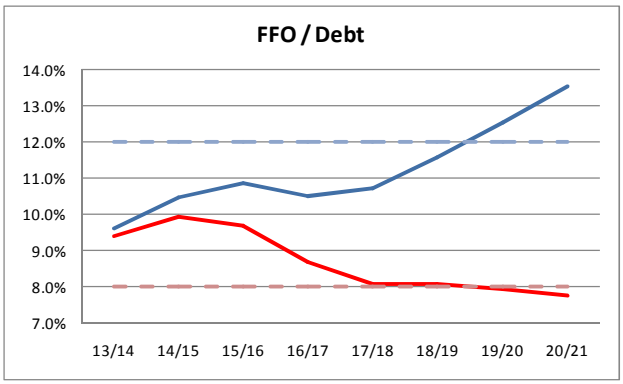
Appendix – NGGT model results

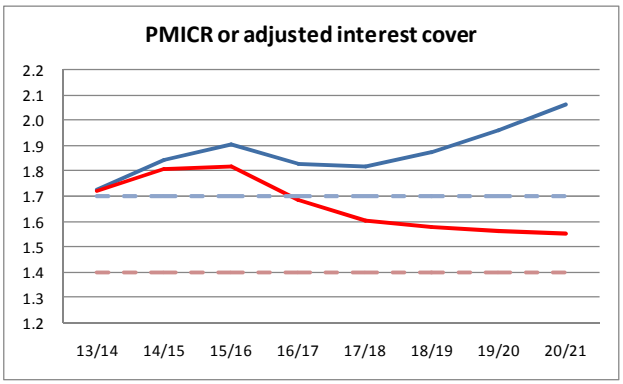
261 This appendix presents graphs of the credit metrics and regulated equity / earnings ratio for the NGGT scenarios discussed in this paper.

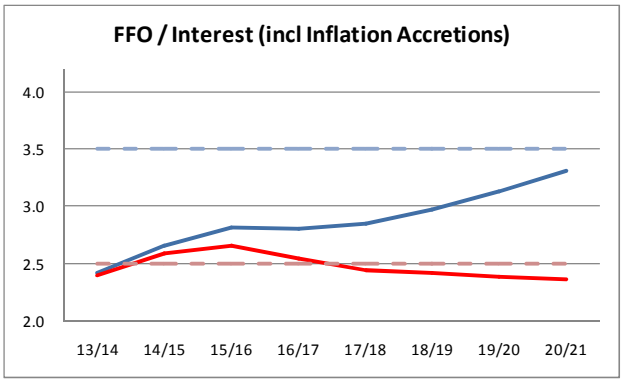
262 Appendix NGGT1 – NGGT best view (red line) and base view (blue line) where expenditure matches allowances

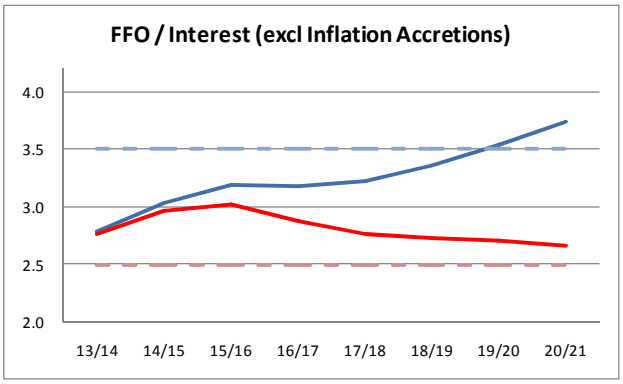




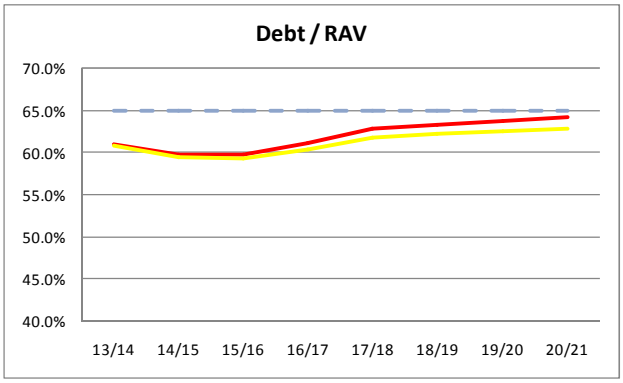


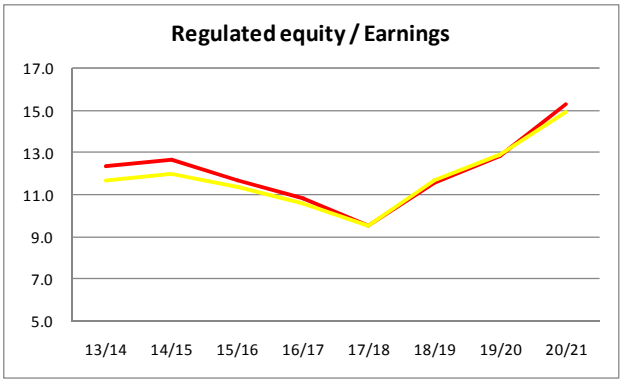


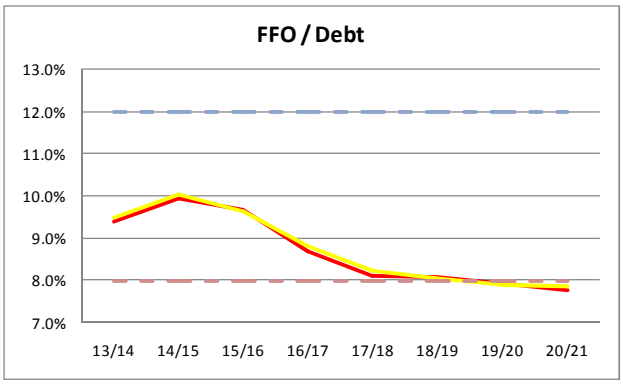


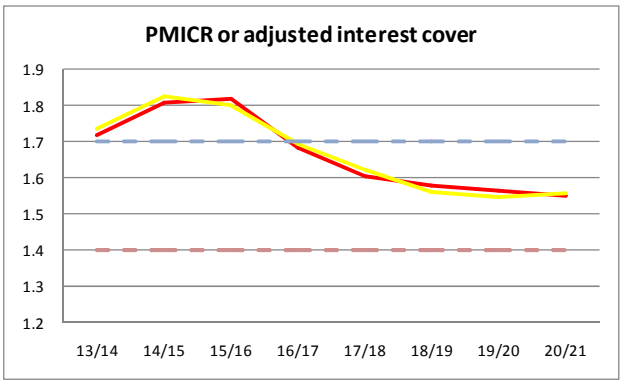


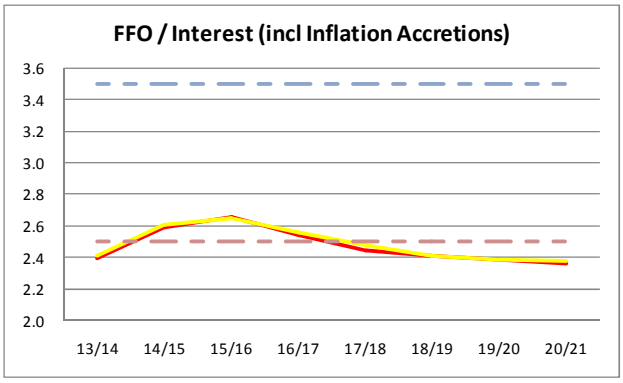
264 Appendix NGGT2 – NGGT best view with spend equal to allowances (red line) and where expenditure is set to the 'efficient view' of costs provided to us (yellow line). Note, where only the yellow line is visible, this is because the yellow and red lines overlap.

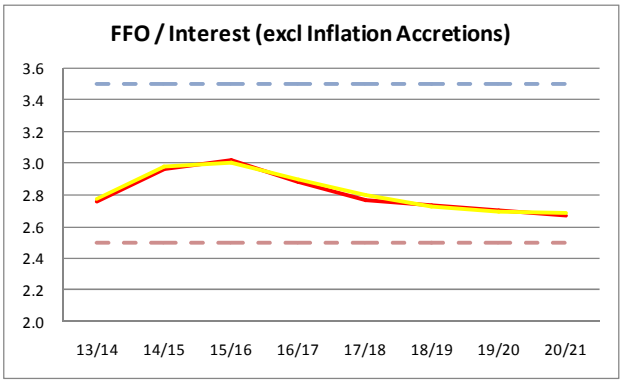






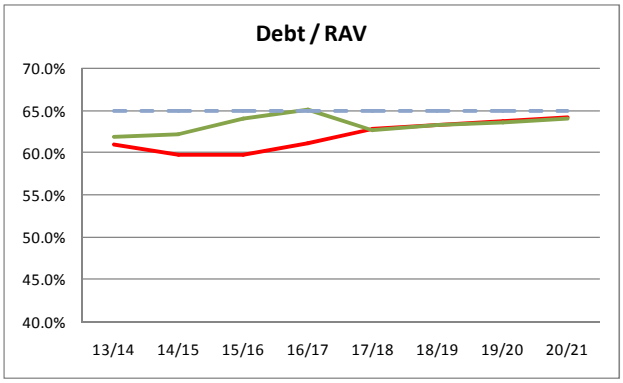


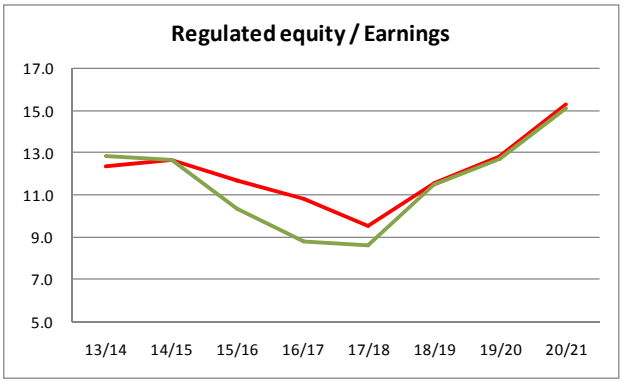


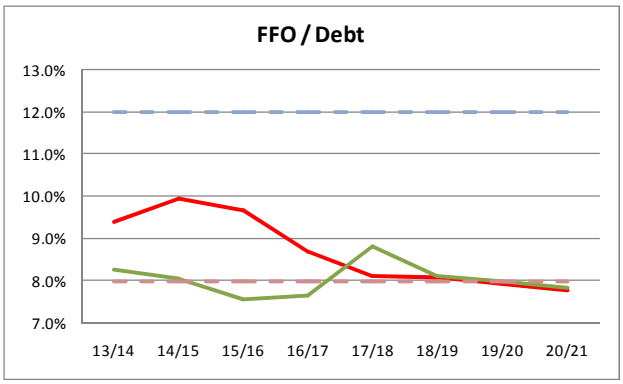


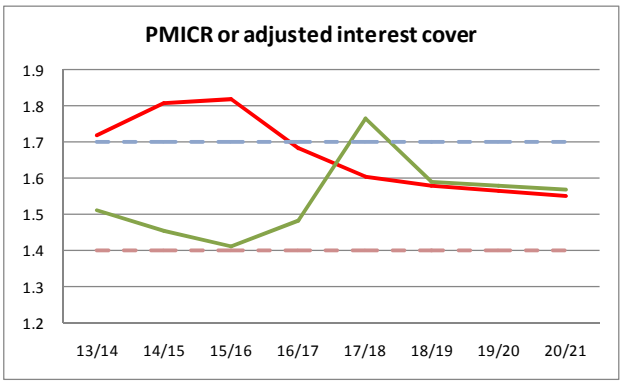
265 To achieve alignment in the appendix numbers, there is no appendix NGGT3.

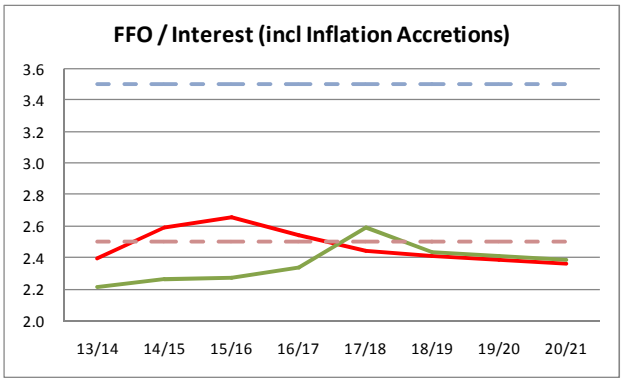
266 Appendix NGGT4 – NGGT best view with spend equal to allowances, i.e. with no delays in uncertainty mechanism funding (red line) and another scenario where expenditure matches 'best view' but the timing of allowances is updated to reflect the expected operation of the uncertainty mechanisms. (green line). Note, where only the green line is visible, this is because the green and red lines overlap.

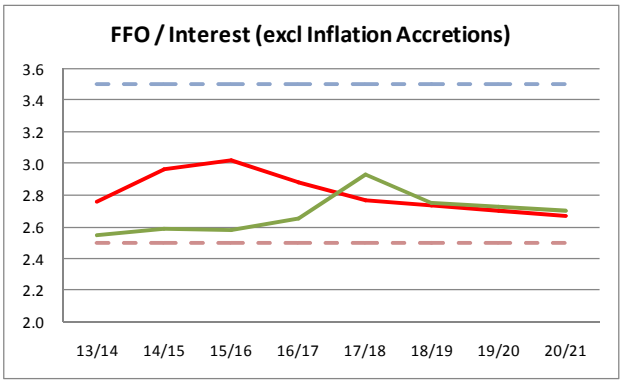




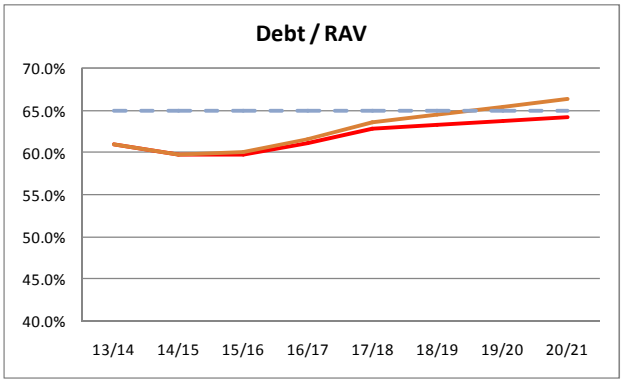


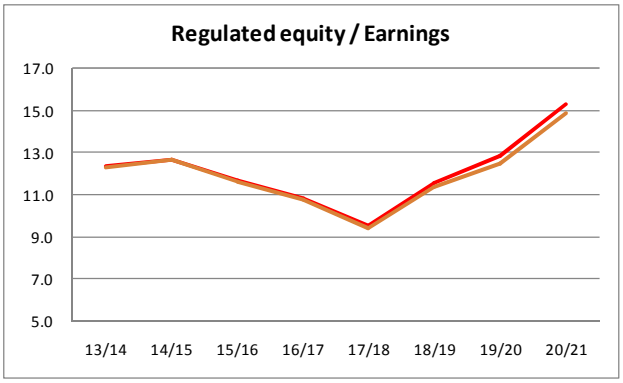


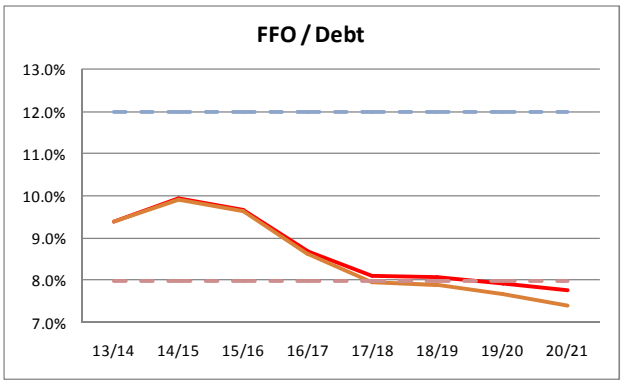


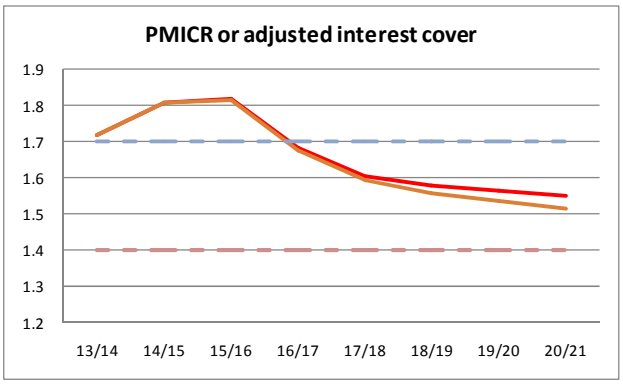


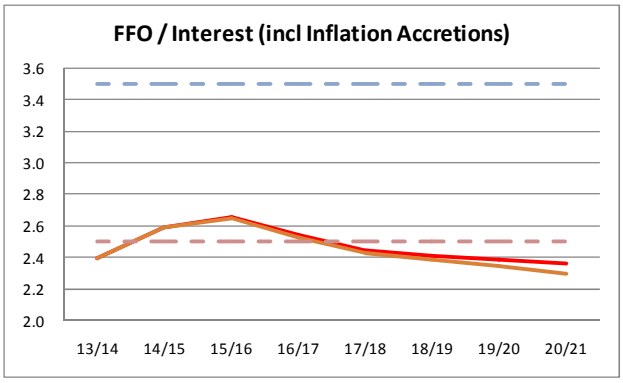
267 Appendix NGGT5 – NGGT best view with spend equal to allowances with Ofgem's restriction on dividends to the base RAV only (red line) compared to the same scenario with the formula for dividends set to be consistent with the other networks (orange line)

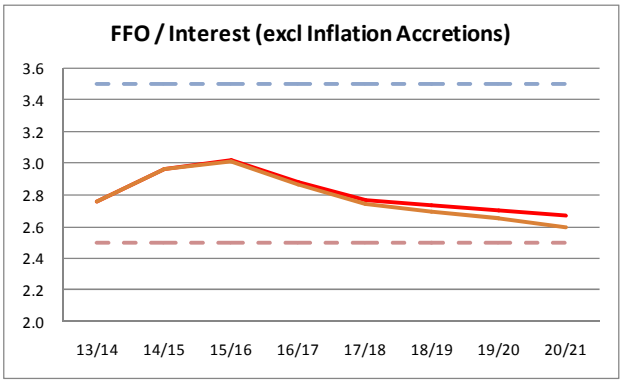




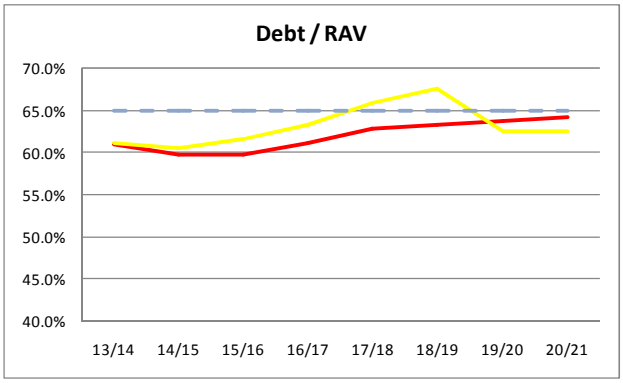


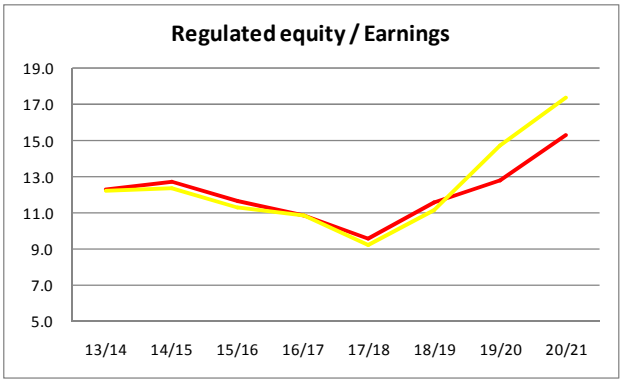


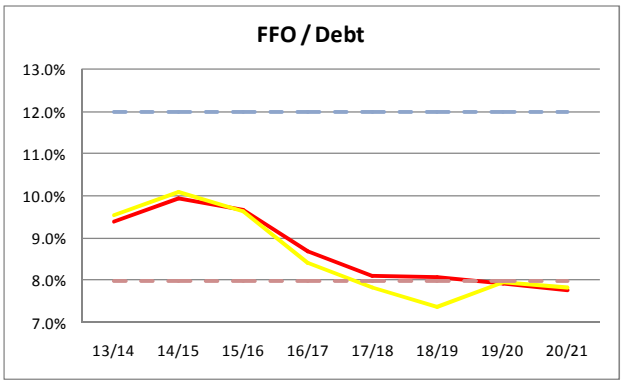


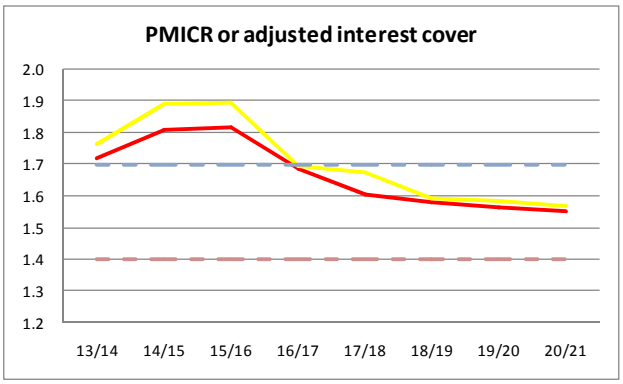


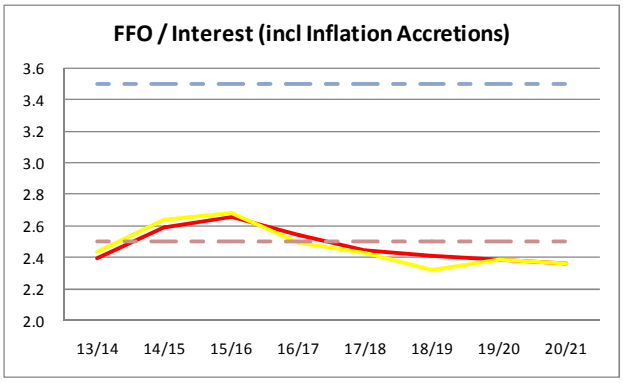
268 Appendix NGGT6 – NGGT best view with spend equal to allowances (red line) compared to a scenario with additional load related investment fully funded by uncertainty mechanisms (with no delay) (yellow line)

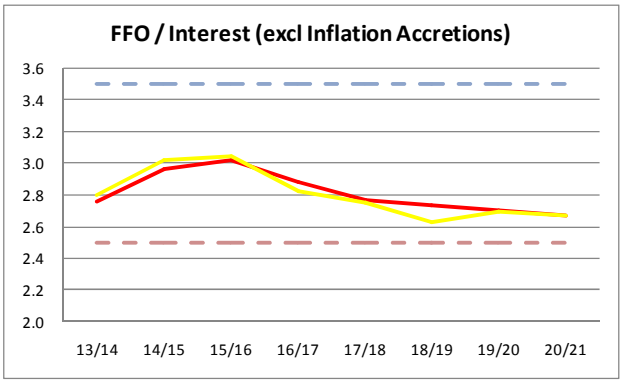




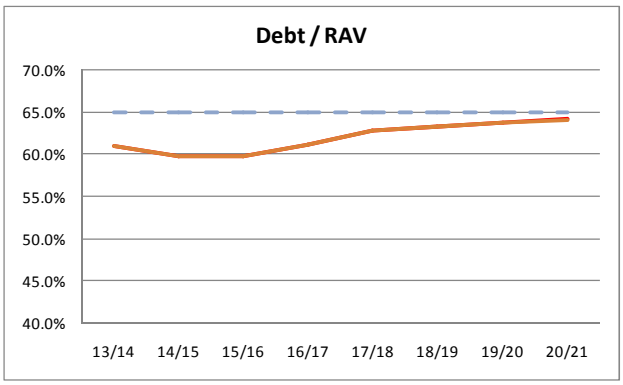


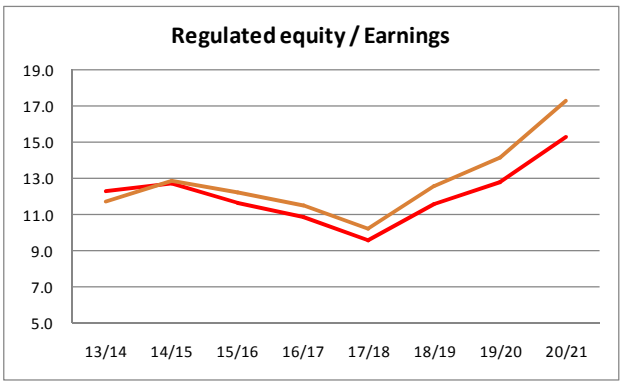


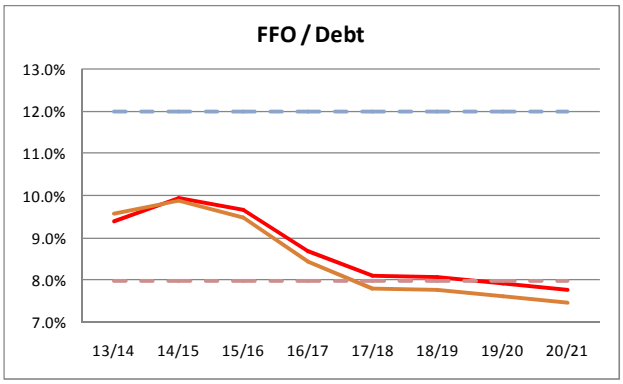


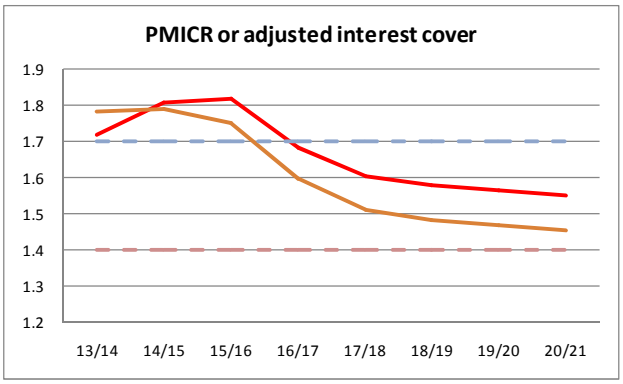


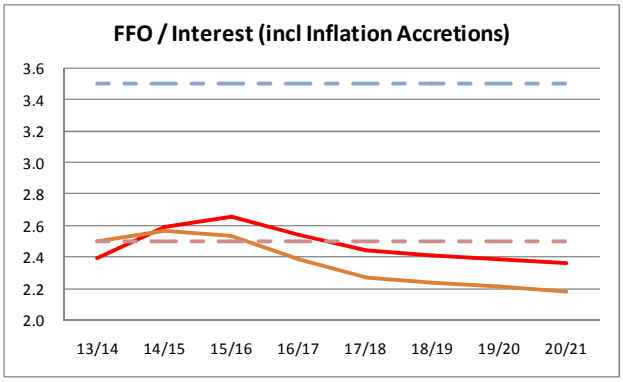
269 Appendix NGGT7 – NGGT best view with spend equal to allowances and the prevailing model assumption for long run inflation of 2.5% (red line) compared to the same scenario with long run inflation set to 3.0% (orange line). Note, where only one line is visible the two lines overlap.

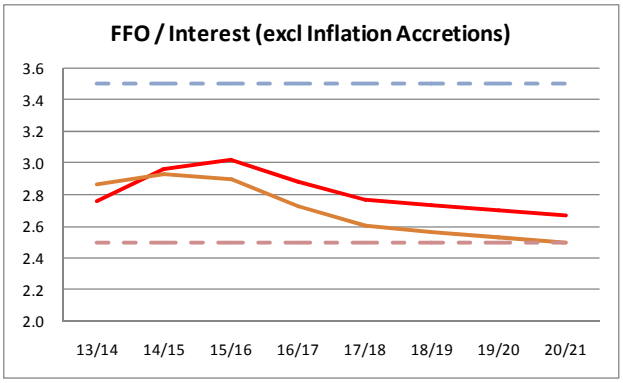










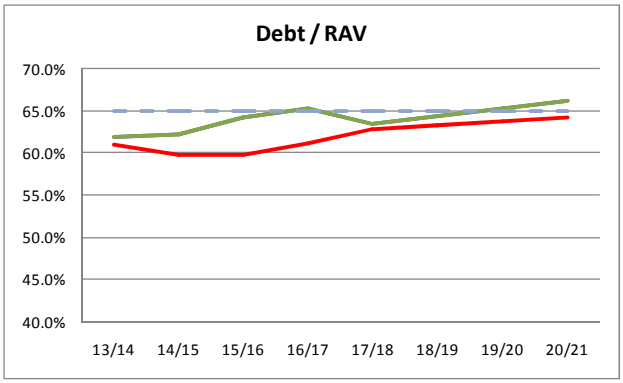


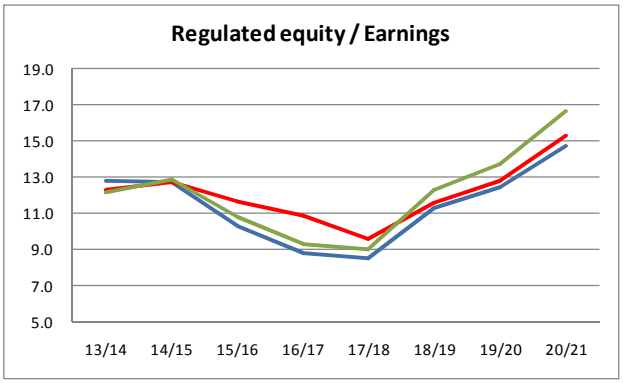
271 Appendix NGGT8 – NGGT best view with spend equal to allowances and the prevailing model assumption for long run inflation (2.5%) (red line) compared to two other scenarios:

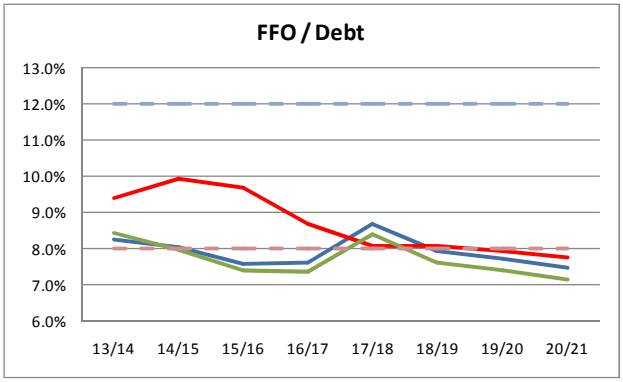
(a) Best view with the timing impact of delayed uncertainty mechanism funding, the removal of the dividend restriction, and Ofgem's RPI assumption (blue line)

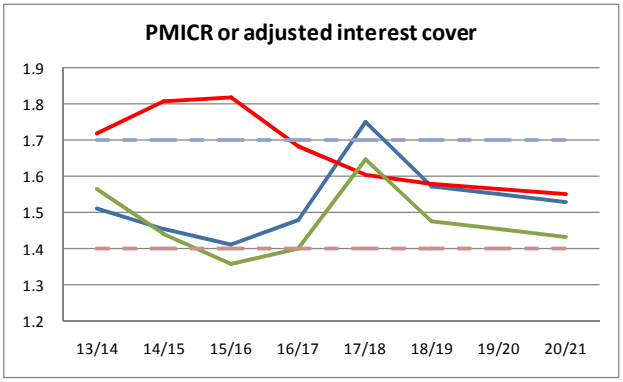
(b) Best view with the timing impact of delayed uncertainty mechanism funding, the removal of the dividend restriction, and long run RPI of 3.0% (green line).

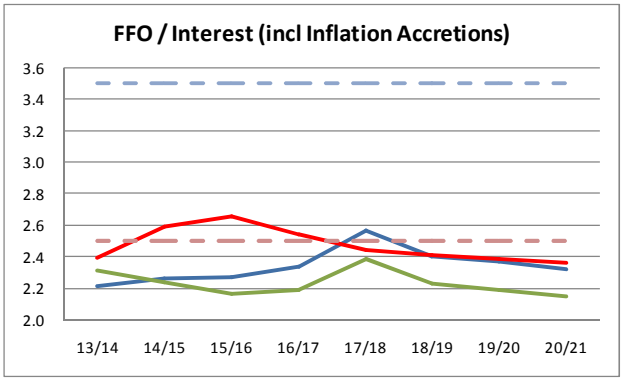
272 Note, in the debt / RAV ratio the green and blue lines overlap.

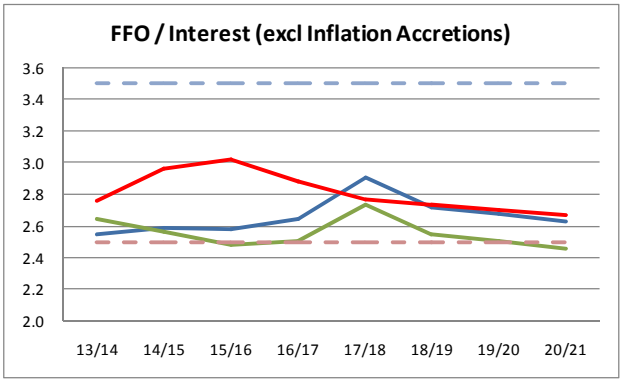




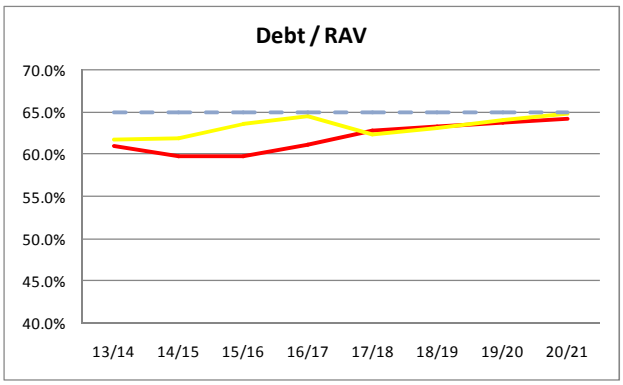


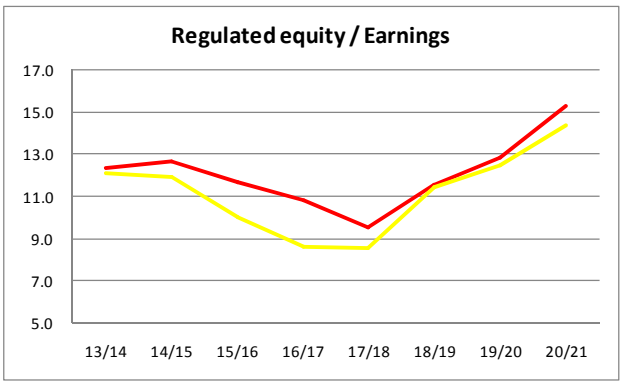


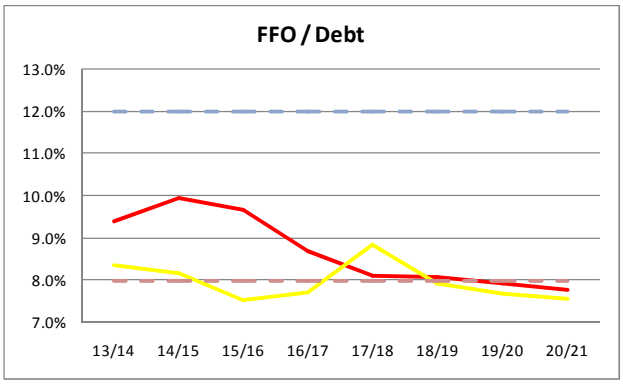


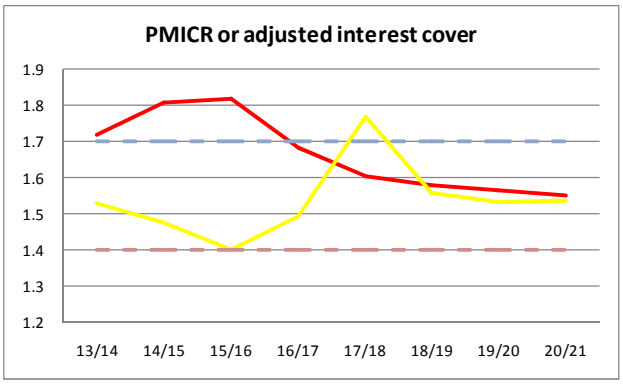


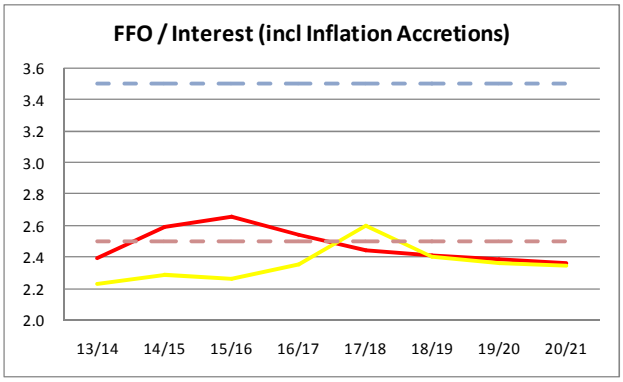
273 Appendix NGGT9 – NGGT best view with spend equal to allowances (red line) compared to the best view with the timing impact of delayed uncertainty mechanism funding recognised, the removal of the dividend restriction, and Ofgem's view of efficient costs (yellow line)

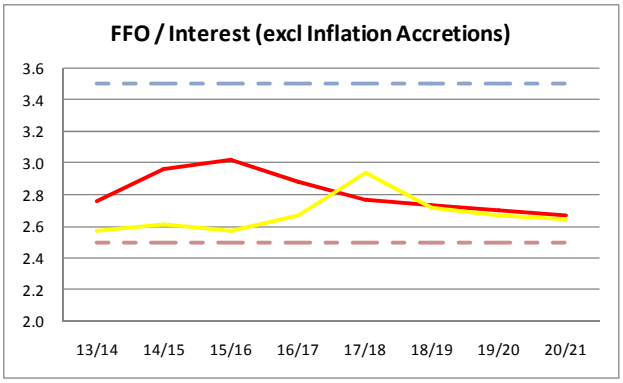




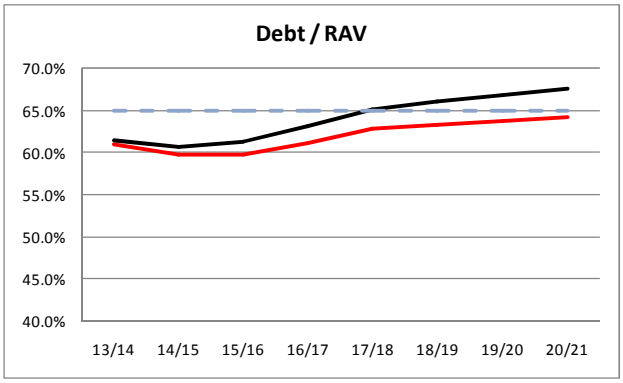


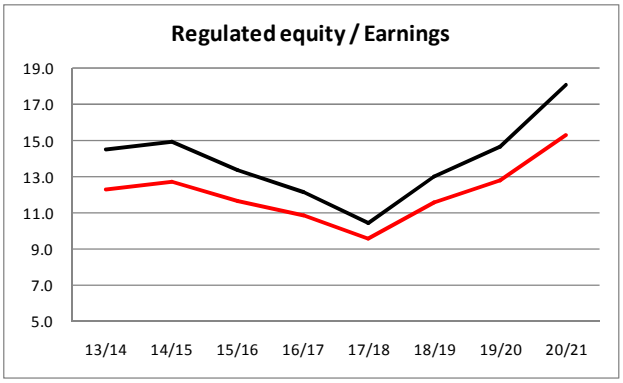


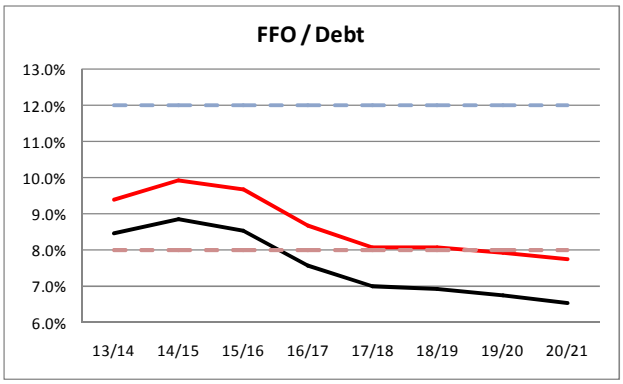


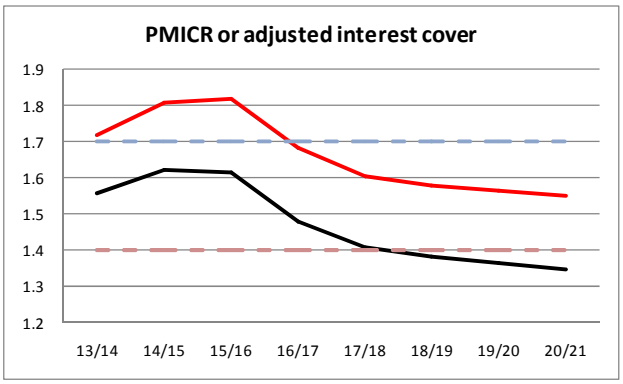


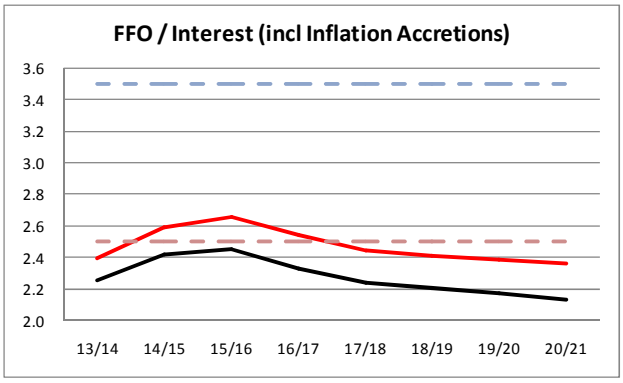
274 Appendix NGGT10. NGGT best view including all income recoveries and cash flows (red line) compared to a scenario with time limited income recoveries associated with the previous price control removed (black line)

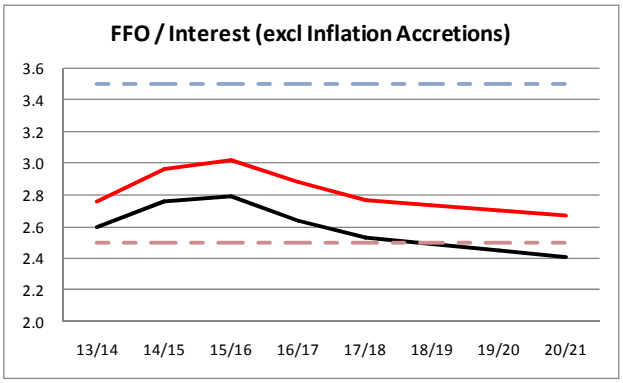








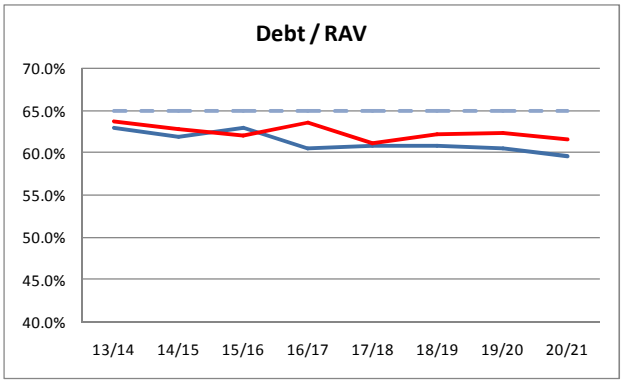


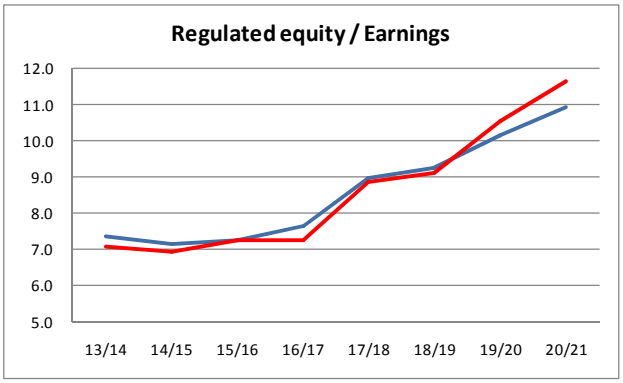


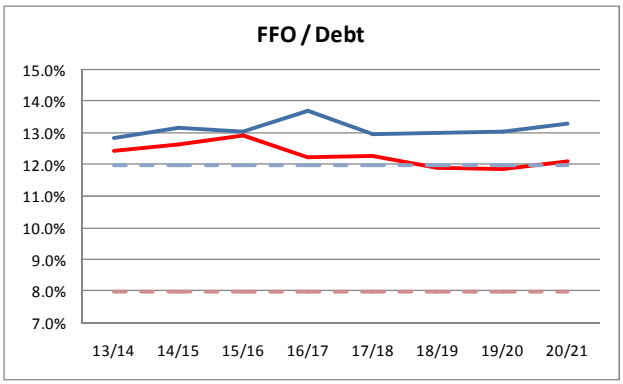
Appendix – NGET model results

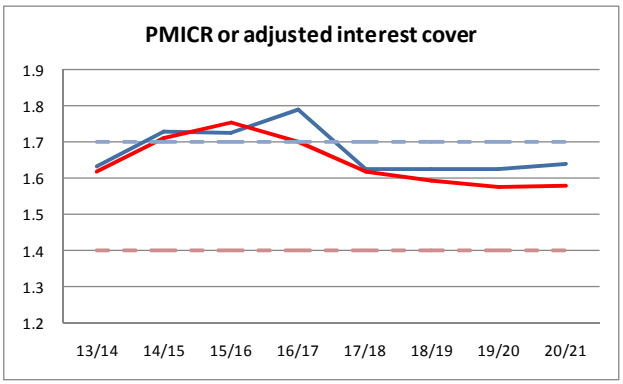
275 This appendix presents graphs of the credit metrics and regulated equity / earnings ratio for the NGET scenarios discussed in this paper.

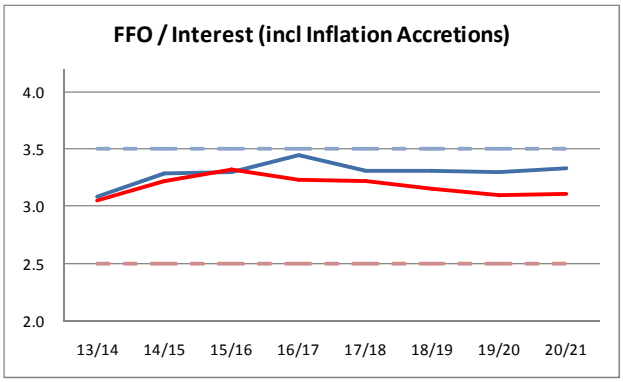
276 Appendix NGET1 – NGET best view (blue line) and base view (red line) where expenditure matches allowances.

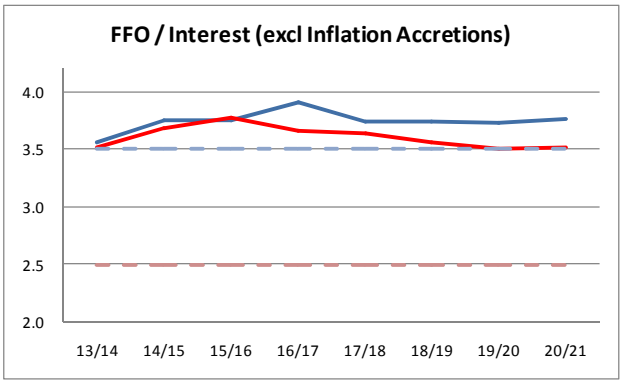




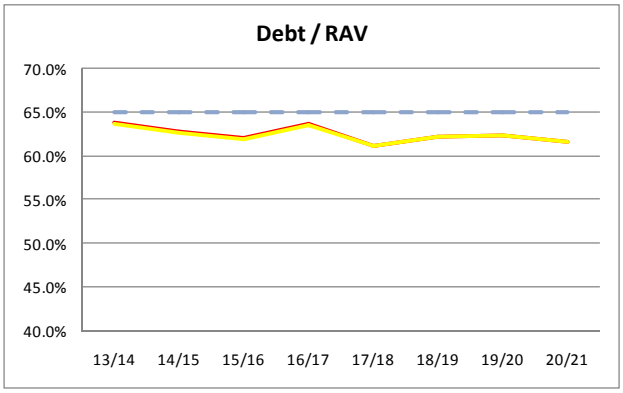


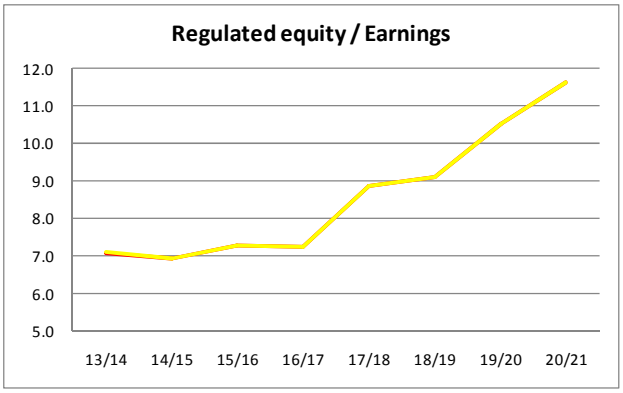


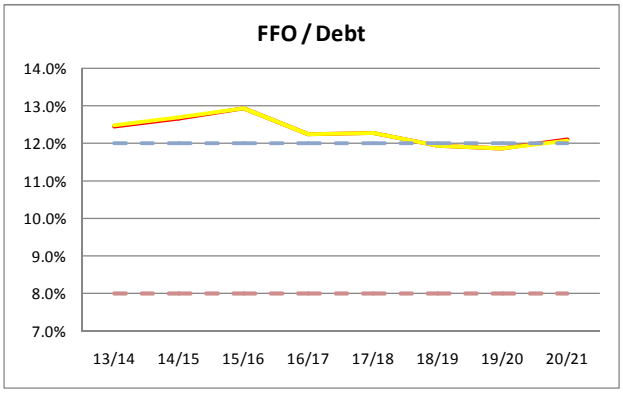


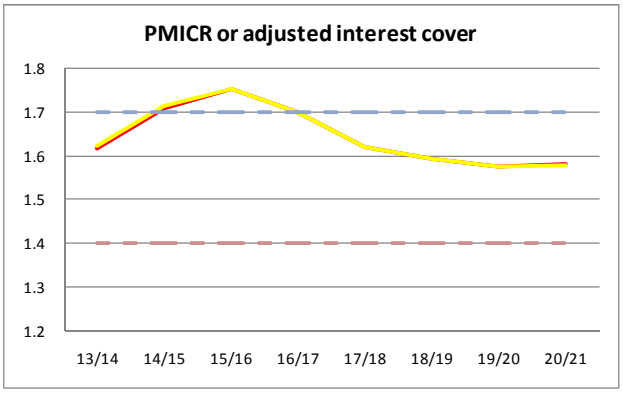


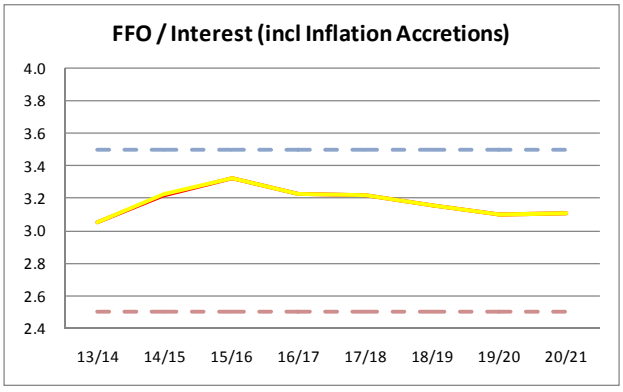
277 Appendix NGET2 – NGET best view with spend equal to allowances (red line) and where expenditure is set to the 'efficient view' of costs provided to us (yellow line). Note, where only the yellow line is visible, this is because the yellow and red lines overlap.

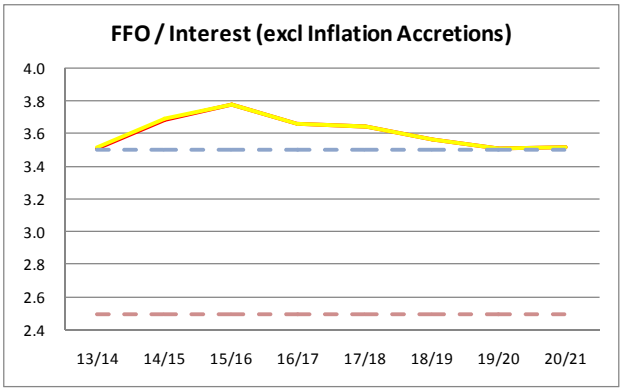




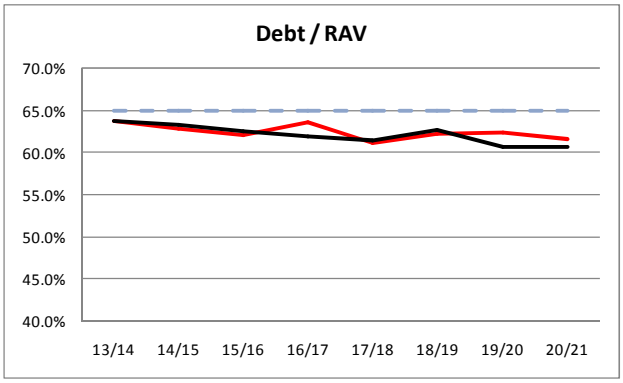


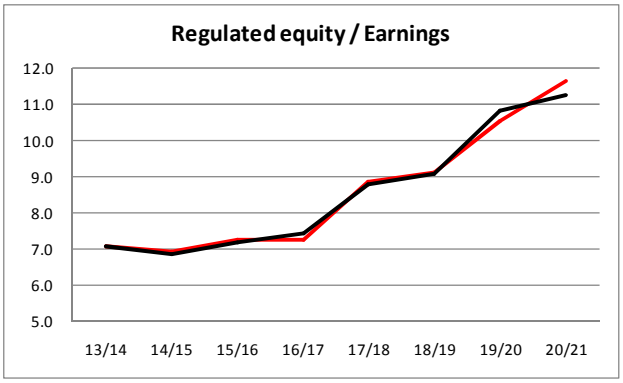


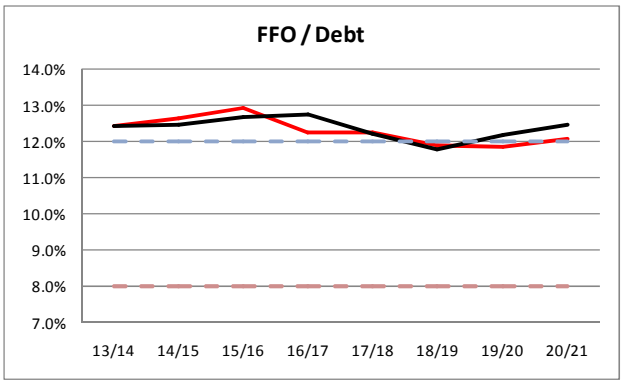


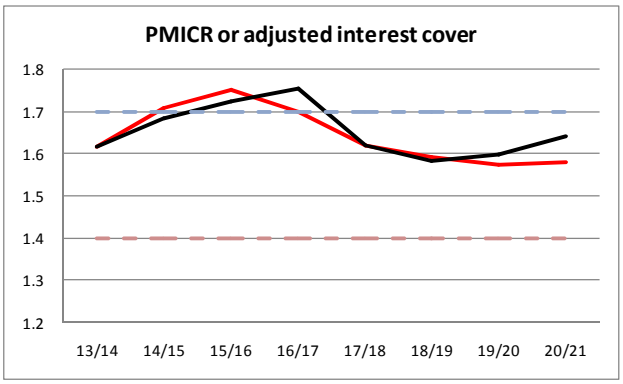


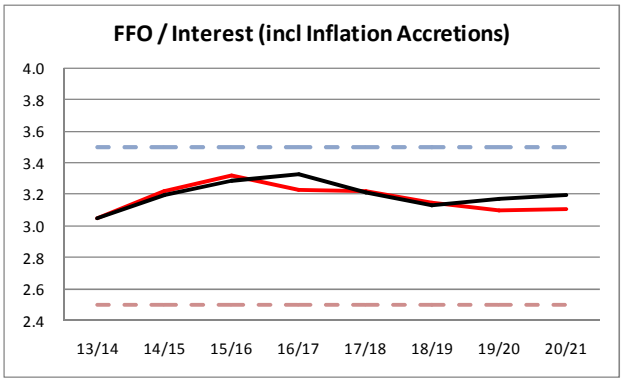
278 Appendix NGET3 – NGET best view with spend equal to allowances (red line) compared to a scenario that adds expenditure incurred in RIIO-T1 relating to RIIO-T2 outputs (black line). Note, where only one line is visible the two lines overlap.

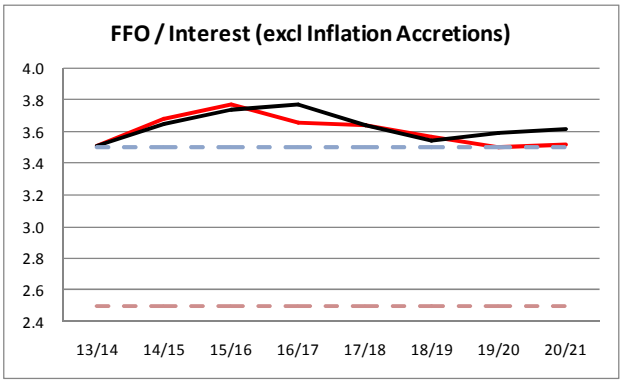




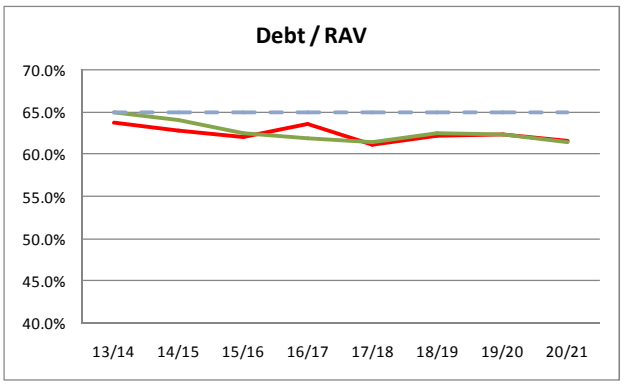


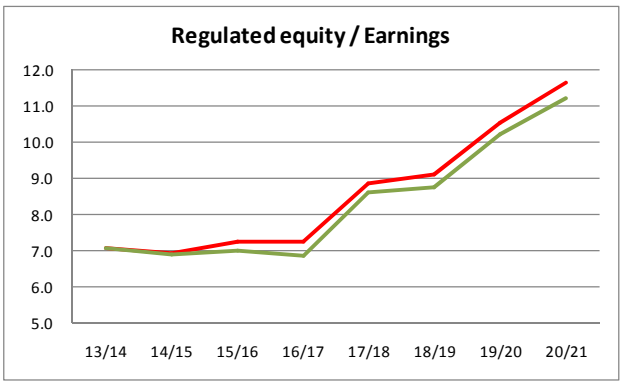


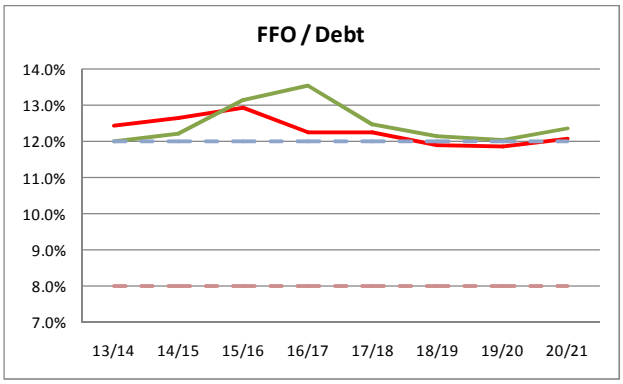


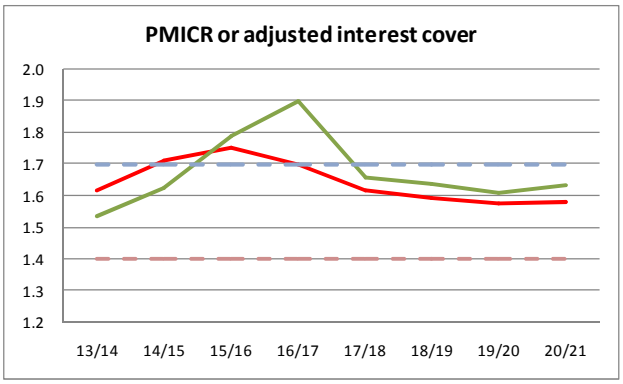


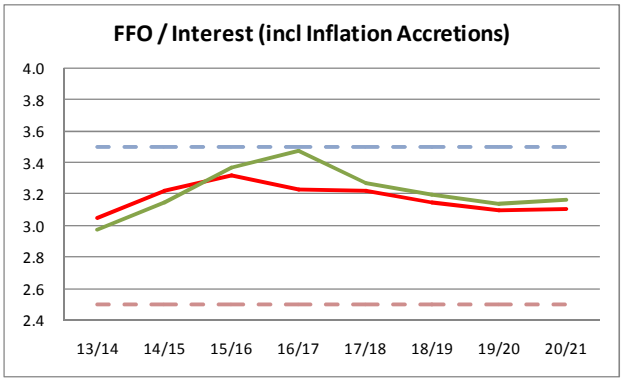
279 Appendix NGET4 - NGET best view with spend equal to allowances, i.e. with no delays in uncertainty mechanism funding (red line) and another scenario where expenditure matches 'best view' but the timing of allowances is updated to reflect the expected operation of the uncertainty mechanisms (green line).

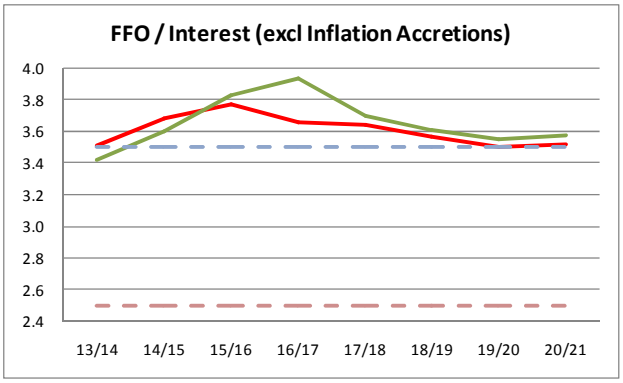




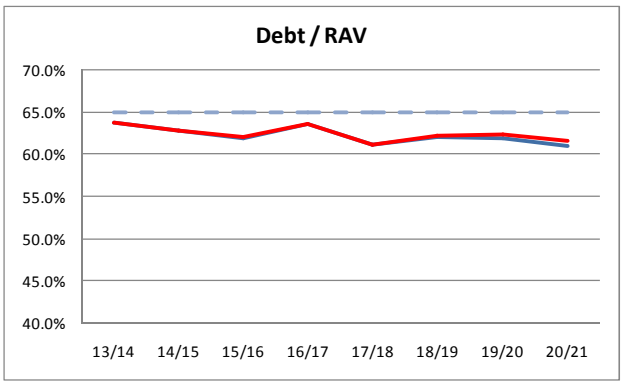


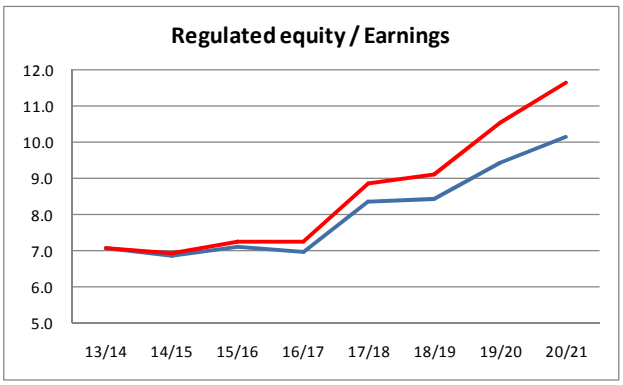


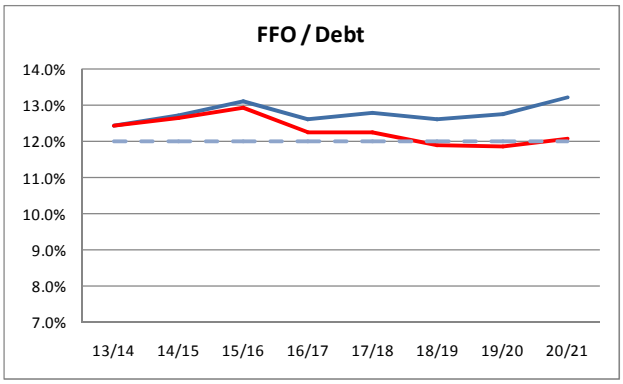


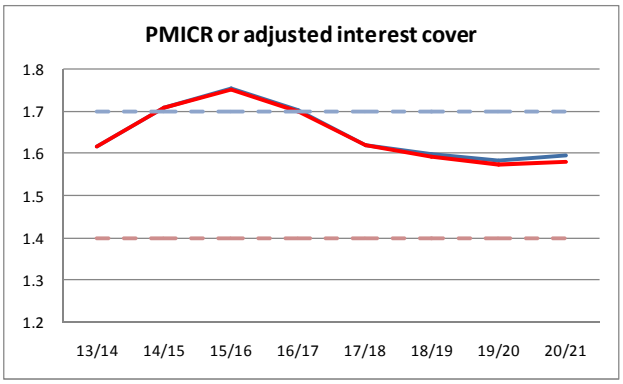


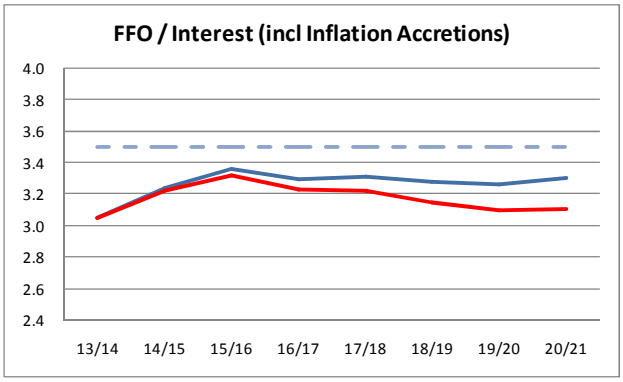
281 Appendix NGET5 – NGET best view with spend equal to allowances with transition to a 45 year asset life over 8 years (red line) compared to the same scenario with transition to a 45 year asset life over 16 years (blue line). Note, where only one line is visible the two lines overlap.

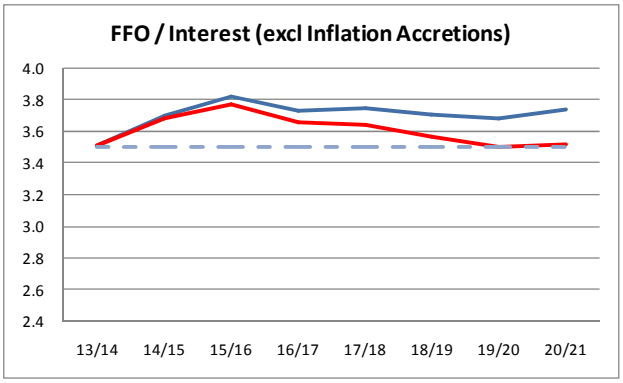




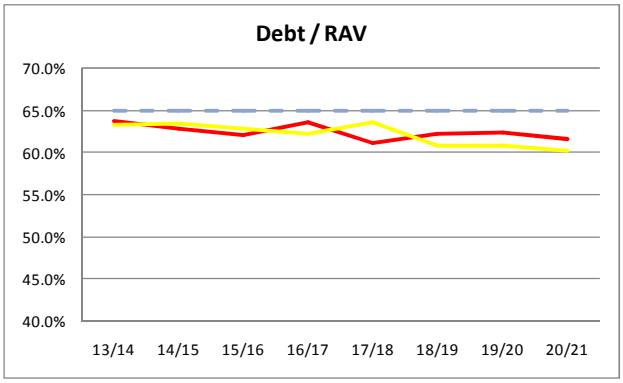


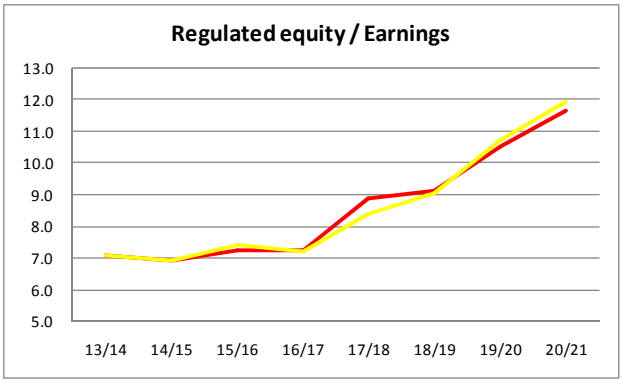


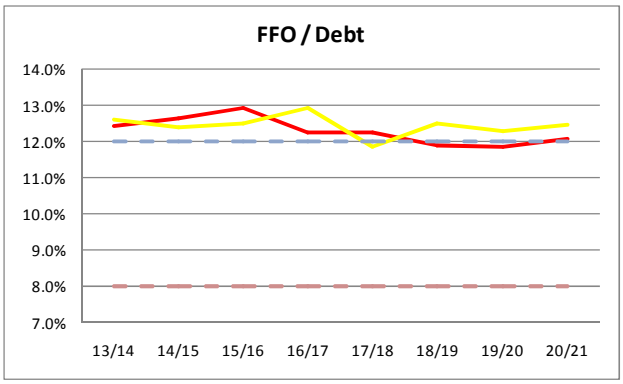


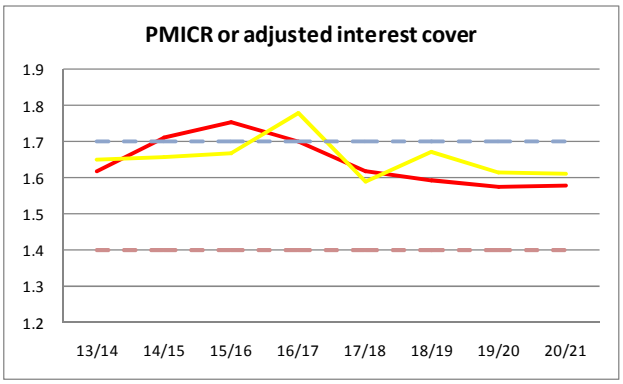


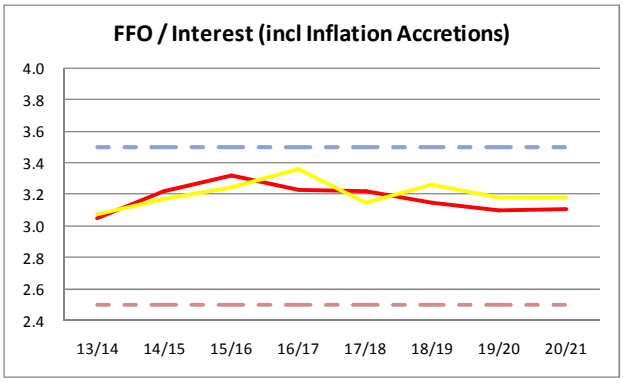
282 Appendix NGET6 – NGET best view with spend equal to allowances (red line) compared to a Slow Progression scenario with less load related investment with matching adjustments to allowances from uncertainty mechanisms (with no delay) (yellow line)

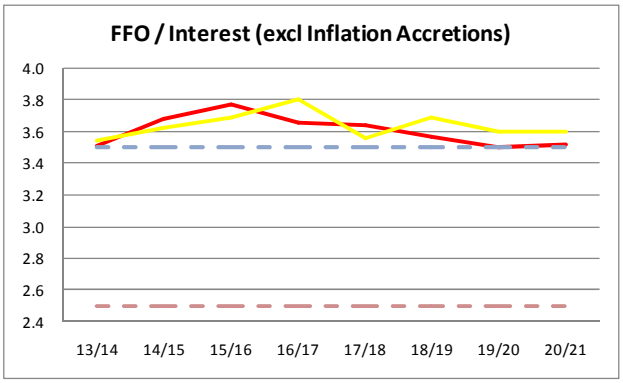




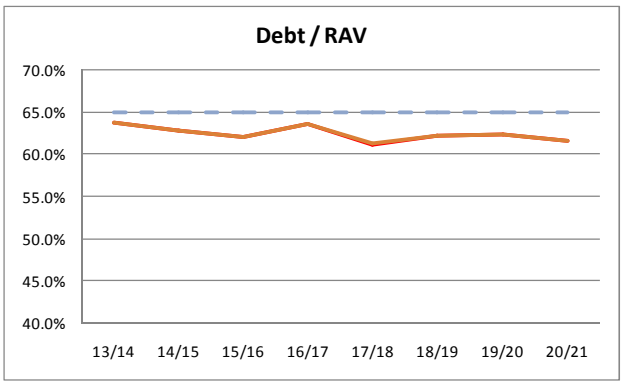


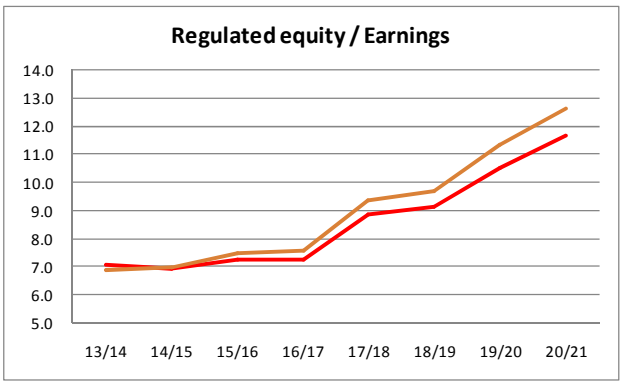


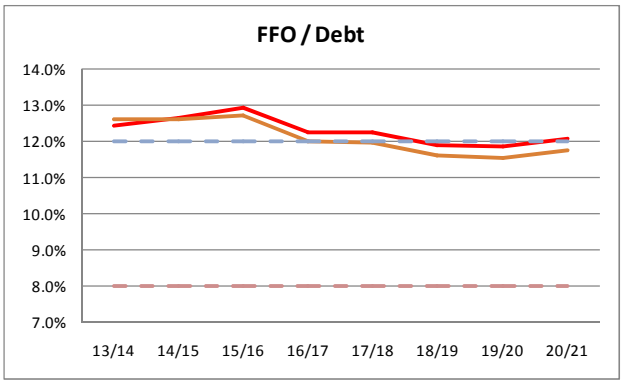


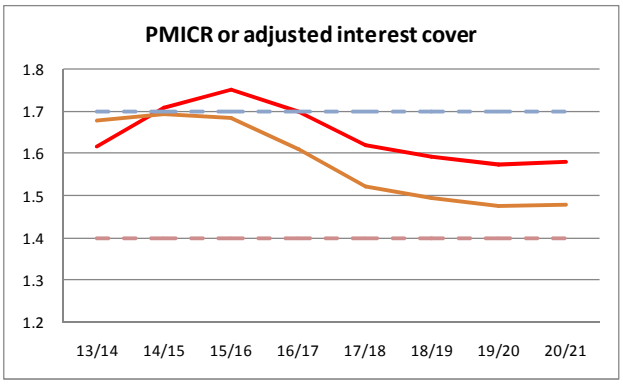


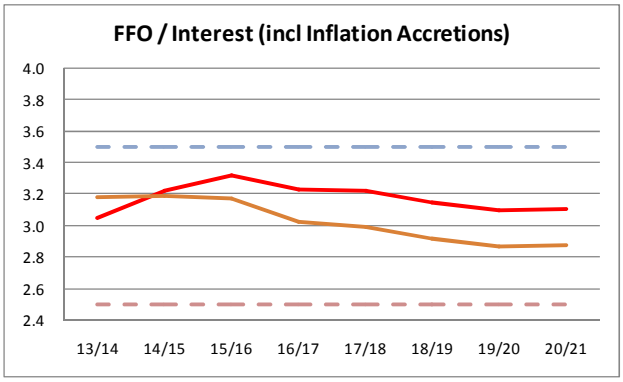
283 Appendix NGET7 – NGET best view with spend equal to allowances and the prevailing model assumption for long run inflation of 2.5% (red line) compared to the same scenario with long run inflation set to 3.0% (orange line). Note, where only one line is visible the two lines overlap.

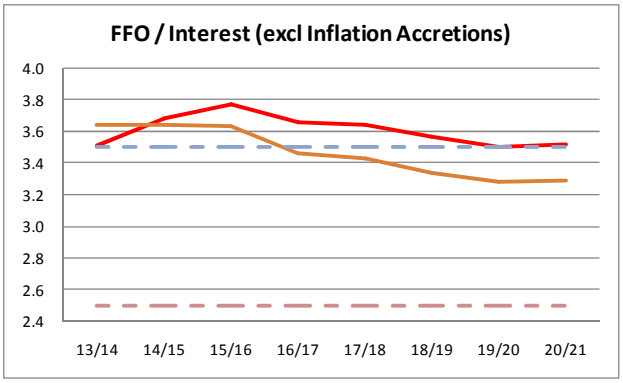










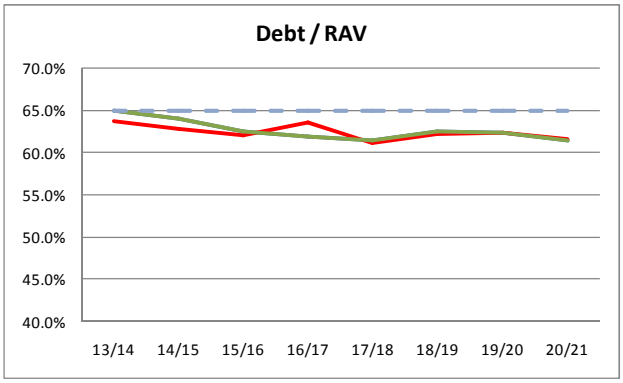


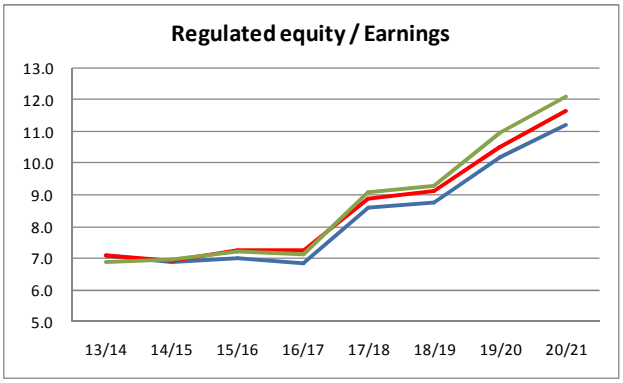
284 Appendix NGET8 – NGET best view with spend equal to allowances and the prevailing model assumption for long run inflation (2.5%) (red line) compared to two other scenarios:

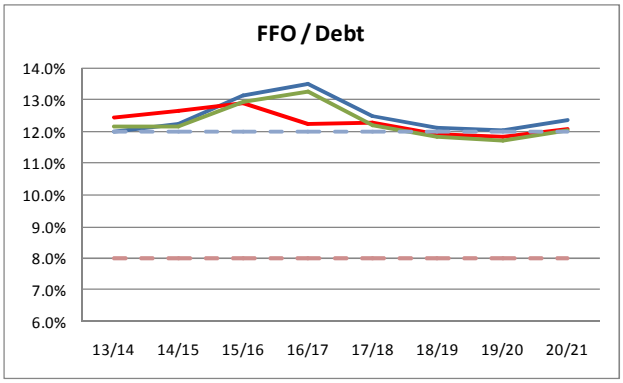
(a) Best view with the timing impact of delayed uncertainty mechanism funding recognised, recognition of the RIIO-T1 spend to deliver outputs in RIIO-T2, and Ofgem's RPI assumption (blue line)

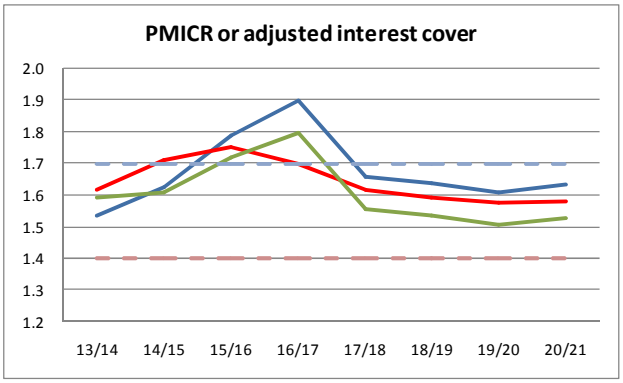
(b) Best view with the timing impact of delayed uncertainty mechanism funding recognised, recognition of the RIIO-T1 spend to deliver outputs in RIIO-T2, and long run RPI of 3.0% (green line).

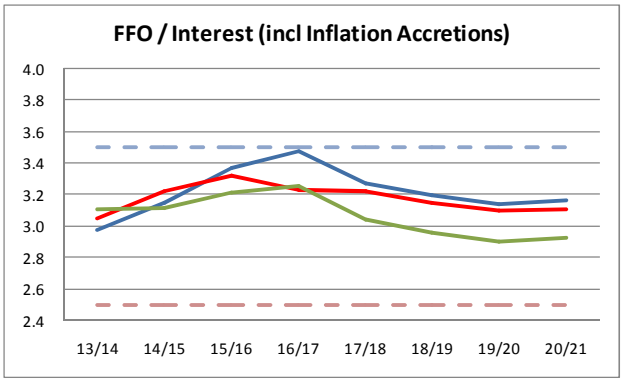
285 Note, in the debt / RAV ratio the green and blue lines overlap.

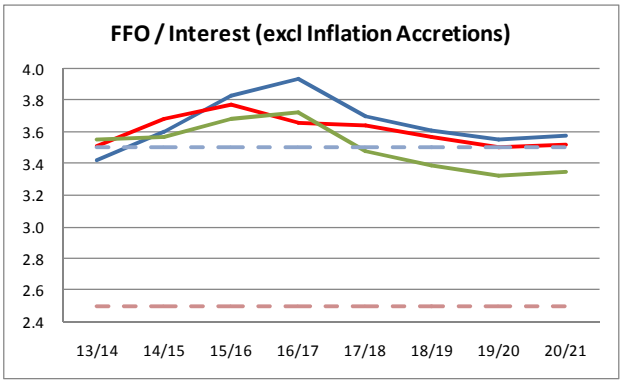




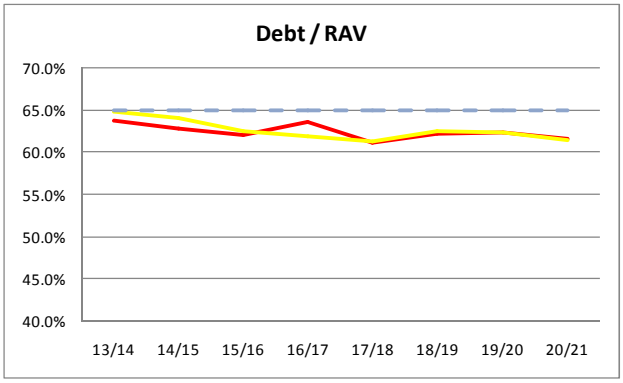


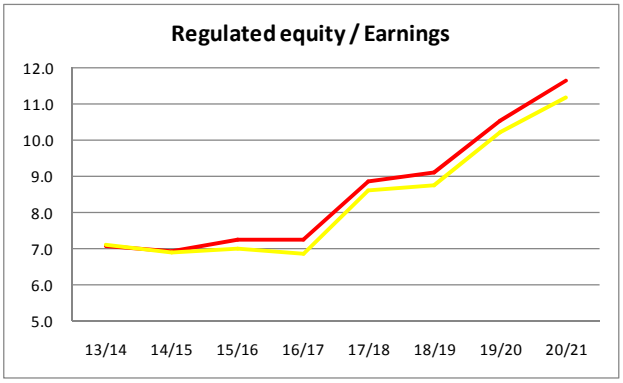


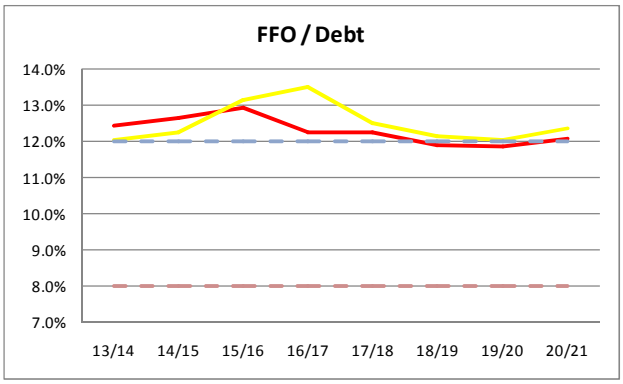


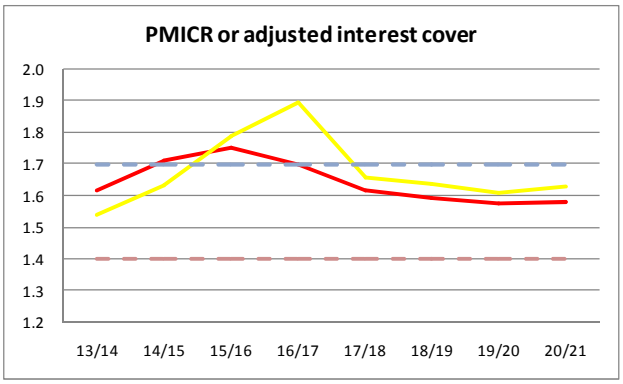


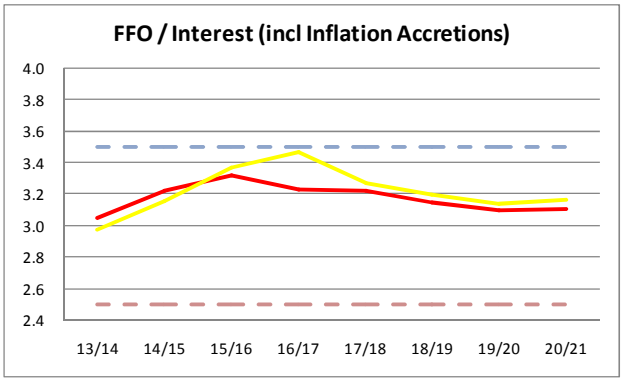
287 Appendix NGET9 – NGET best view with spend equal to allowances (red line) compared to the best view with the timing impact of delayed uncertainty mechanism funding recognised, recognition of the RIIO-T1 spend to deliver outputs in RIIO-T2, and Ofgem's view of efficient costs (yellow line)

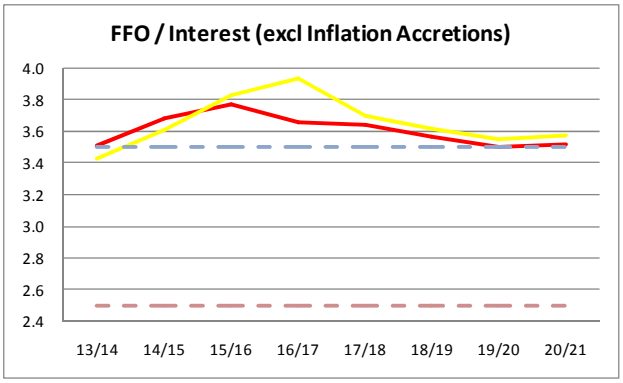












288 Appendix NGET10. NGET best view including all relevant income recoveries (red line) compared to a scenario with the time limited income recoveries associated with the previous price control removed (black line)