

## Response to Draft Determinations for Slow Track DNOs

## 2 Cost of Capital

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### 2.1 Cost of Equity

In our slow track business plan<sup>1</sup> we proposed a Cost of Equity (CoE) of 6.4%. This proposed CoE reflects Ofgem's February 2014 decision<sup>2</sup> on the CoE, the riskiness of our plan relative to other Distribution Network Operators (DNOs) and other price controls, and a comprehensive analysis of theoretical/technical parameters. It was also consistent with Ofgem's March 2013 Strategy Decision<sup>3</sup> on the CoE, and Ofgem's view that we might have the ability, as a *best performing* DNO, to achieve low double-digit returns on regulatory equity (RoRE). From Ofgem's Strategy Decision, the markets and SSE's equity investors expect this on the basis of *best performance*.

Ofgem propose a CoE of 6.0% in its Draft Determinations (DD) stating that this is within the range proposed in the Strategy Decision. Ofgem assert that this CoE contains "*headroom*" i.e. is overly generous for DNOs based on its view of the evidence. This informed its proposal to provide an updated mechanism for the Cost of Debt (CoD) that is under-funded i.e. does not fully reflect the industry's debt profile or enable the industry to recover their actual debt costs over ED1. We address the issues identified in the CoD mechanism below, but firstly address and detail our concerns on Ofgem's CoE position.

***In particular, our view is that there is no headroom in the CoE estimate of 6.0%, and that there remains strong, unrepudiated evidence for a CoE of 6.4%.***

#### 2.1.1 Our Cost of Equity Proposal

In our business plan, we outlined why 6.4% CoE was appropriate on the basis of the relative riskiness and efficiency of our plan to other DNOs, previous price controls, our ability to deliver low double digit RoRE as a *Best Performing* DNO, and the technical arguments. Our proposed CoE is characterised by the parameters outlined in Table 2.1 below, which we have presented in comparison to the DD and other relevant CoE comparators.

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<sup>1</sup> <http://www.yourfutureenergynetwork.co.uk/detailed-documents/>

<sup>2</sup> Ofgem, "Decision on our methodology for assessing the equity market return for the purpose of setting RIIO price controls", February 2014

<sup>3</sup> Ofgem, "Strategy decision for the RIIO-ED1 electricity distribution price control", March 2013

**Table 2.1 – SSEPD’s CoE Parameters vs Ofgem’s DD and Other Comparable Estimates**

	SSEPD Slow Track BP	Ofgem Proposed CoE in DD	Ofgem Proposed CoE Central Reference Point	CC Decision on NIE re- geared <sup>4</sup>	Wright and Smithers <sup>5</sup>	Ofwat DD
Gearing	65%	65%	65%	65%	65%	62.5%
Risk free rate	1.60%	1.50%	1.60%	1.50%	1.50%	1.25%
Equity market returns	6.93%	6.50%	6.85%	6.50%	6.75%	6.75%
Equity risk premium	5.33%	5.00%	5.25%	5.00%	5.25%	5.50%
Equity beta	0.90	0.90	0.90	0.90	0.90	0.80
Cost of Equity	6.40%	6.00%	6.30%	6.00%	6.23%	5.65%

Ofgem used a central reference point of 6.30% to assess business plans but arrived at a CoE of 6.0% in its DD. From Table 2.1, it is not straight forward to draw a conclusion on the appropriate CoE without assessing the underlying assumptions of the key Capital Asset Pricing Model (CAPM) parameters. When considering the underlying parameters it is clear to us that there is no *headroom* in the cost of equity of 6.0% and there remains compelling evidence supporting a CoE above 6.4%. We address each of the relevant parameters in turn.

### 2.1.2 Response to Evidence Justifying Headroom in CoE

We fundamentally disagree with Ofgem’s assertion that *headroom* exists in the proposed CoE of 6.0%. On behalf of the ENA, NERA<sup>6</sup> has undertaken detailed examination of whether there is any *headroom* in the CoE at 6.0%. NERA concludes that there is no *headroom* in a CoE of 6.0% and more so there exists compelling evidence that the CoE should be greater than 6.4%. Additionally, NERA have provided a report to four of the DNOs<sup>7</sup> (SSEPD, SPEN, ENW, and NPG) to translate the Competition Commission (CC<sup>8</sup>) decision on Northern Ireland Electricity (NIE).

<sup>4</sup> As per the DD Financial Issues Supplementary Annex, Table 2.2, Page 7

<sup>5</sup> This is implied from the Wright and Smithers’ paper provided to Ofgem to inform its Decision on Equity Market Returns methodology for setting RIIO price controls by selecting the mid-range on TMR

<sup>6</sup> NERA report for the ENA, “A Response to Ofgem’s Proposals on the Cost of Equity and Debt for RIIO-ED1”

<sup>7</sup> NERA report for the four DNOs, “A Response to Ofgem’s Cost of Equity Estimates in the RIIO-ED1 Draft Determination

<sup>8</sup> We will refer to the Competition and Markets Authority (CMA) as the CC, its predecessor, which it was referred to at the time of its decision on the NIE price control settlement

In its analysis, NERA collectively examined:

- Transaction evidence of RAV premia
- Interest rate risk exposure under the proposed CoD trombone index
- Existence of the “halo effect” (see section 2.2.1)
- Total Market Returns (TMR) estimate
- Ofgem’s equity beta estimate
- Reliance on Forward Interest Rates
- Translating the CC decision on NIE (separately for four DNOs)

A summary of each item is summarised below.

#### **2.1.2.1 Transaction Evidence of RAV Premia**

Ofgem continue to believe that evidence of RAV premia on M&A transactions indicates returns are excessive for the risk being taken in regulated industries. However, this is difficult to prove given the infrequent number of transactions, optimism bias on future performance and regulatory settlements, and fair value assessment of transactions. Additionally, McQuarie<sup>9</sup> highlighted in their response to Ofgem’s equity market return consultation that privately owned companies can leverage assets significantly higher and at lower cost than public listed companies and often pay significantly less tax, thereby significantly increasing the premium placed on regulated businesses by these acquirers.

NERA highlight in their report that historical transaction premium is principally explained by outperformance on the cost of debt and (*then*) higher cost of equity allowances. They conclude that there is no longer the scope for industry wide debt or equity outperformance under RIIO-ED1 i.e. that Ofgem has addressed any reasons that may have contributed to premia. Other factors that we believe influence future premia downwards include the transition from 20 to 45 year asset lives for RAV additions, the continuing pressure on DNO costs and allowances, and the continuing political pressure being applied to the overall industry<sup>10</sup>.

Therefore, concluding that there is a RAV premia based on an inappropriately set CoE is overly simplistic when considering the underlying value of transactions and that past M&A activity is not necessarily an indicator of current or future valuations premiums. This seems particularly apparent given the structure of previous transactions and the transition to RIIO going forward.

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<sup>9</sup> McQuarie Capital (Europe) Limited, “Re: Consultation on the methodology for assessing the equity market return for the purpose of setting RIIO price controls”.

<sup>10</sup> Moody’s (20 November 2013), ‘Concerns About the Affordability of Energy Policy Increase Political Risk to the Detriment of Credit Quality’  
Moody’s (30 September 2013), ‘UK Opposition Labour Party Pledge to Freeze Energy Tariffs Is Credit Negative for Utilities’

### **2.1.2.2 Interest Rate Risk Exposure**

Ofgem propose that the interest rate risk exposure for DNOs has fallen due to the change in the CoD index mechanism to a trombone approach whereby the index is extending to a 20 year trailing average over 10 years starting in year one of ED1. Although the interest rate risk exposure has reduced when compared to a 10 year trailing average index, as Ofgem also notes, the mechanism does not go far enough to address the shortcomings in the original CoD mechanism. Also, Ofgem do not translate this exposure into a quantifiable reduction in beta. Therefore stipulating that the risk has fallen does not in itself justify a reduction in risk that translates to a reduction in the CoE below 6.0%.

This is a conceptual and unquantifiable justification for supposed headroom in the CoE and therefore should not be considered on these grounds alone. It is also not supported by the CC decision on NIE, whereby the interest rate risk exposure is greater under ED1 than for NIE since several DNOs do not recover their embedded debt costs, whereas NIE are able to recover these costs<sup>11</sup>.

### **2.1.2.3 Total Market Returns (TMR) Estimate**

Ofgem draws on the CC's evidence alongside Wright and Smithers to conclude that an appropriate Total Market Return (TMR) estimate is 6.50% to 6.85% at most. This is based on the view from the CC that *"A forward-looking expectation of a return on the market of 7% does not appear credible to us, given economic conditions observed since the credit crunch in 2008 and lowered expectations of returns"*<sup>12</sup>. This can be considered a departure from the CC's previous approach and cannot be directly applied to DNOs as it is not a comparable time period - this was observed using short term evidence for a 5 year price control that had less than 3.5 years to complete. The margin of estimation error in ED1 is therefore greater given the eight year period, particularly with no observable ED1 price control period data to rely upon like the CC decision on NIE.

Wright and Smithers' update for the DMS dataset and due to the extra years of data they identify that the *"assumed real market cost of capital feeding into WACC calculations would be lowered by around 0.5% (or at most 0.75%)". Based on Ofgem's previous assumptions this would bring it down to 6.75% or (at the lowest) 6.5%.*<sup>13</sup>. In our view the evidence suggests that since ED1 extends to eight years, Ofgem's estimate must reflect the risk of estimation errors and mean reversion and as such the evidence points to the top end of the range 6.75% to 7.0%, which is 7.0%.

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<sup>11</sup> This sentence is paraphrased from NERA report for the ENA

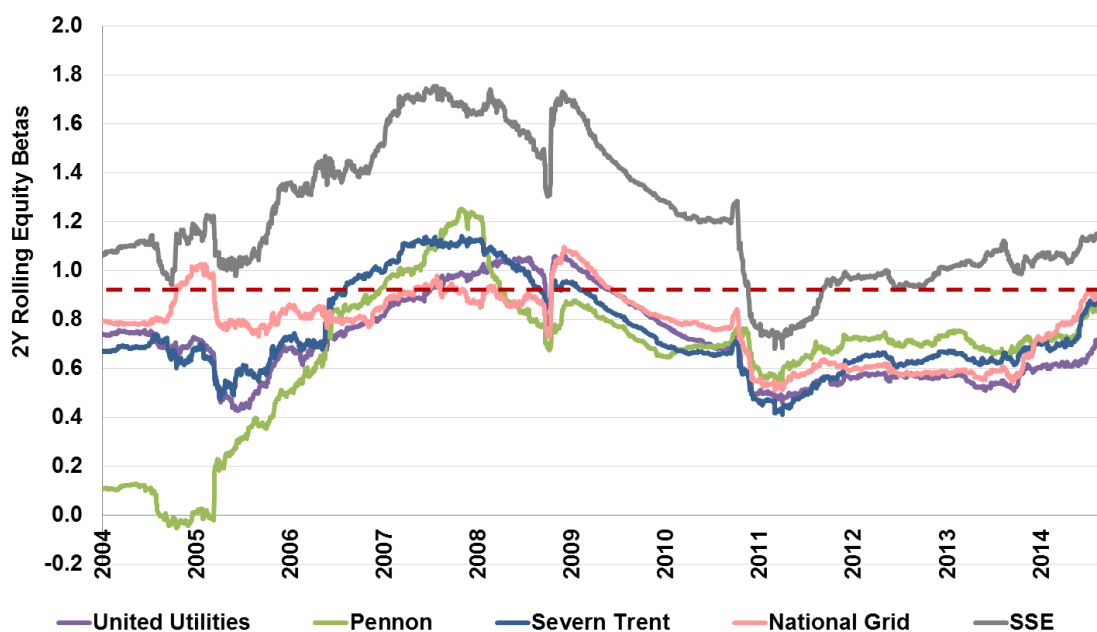
<sup>12</sup> CC NIE FD, P13-29. The CC also provides a number of other arguments. However these were already known before the 2010 Bristol Water decision when the CC still concluded on a TMR value of 7% (quoted in NERA, *"A Response to Ofgem's Cost of Equity Estimates in the RIIO-ED1 Draft Determination"*).

<sup>13</sup> Wright and Smithers, *"The Cost of Equity Capital for Regulated Companies: A Review for Ofgem"*, p2 para 5.

#### 2.1.2.4 Equity Beta Estimate

Ofgem assert that the primary reason for the reduction in the CoE from 6.4% to 6.0%, and its conclusions on headroom, is changes to the underlying equity beta estimate since Ofgem's Strategy Decision. The primary source of data for this changed view is analysis done for a Financeability Study (2012)<sup>14</sup> undertaken on behalf of Ofgem that considered the observable betas for comparable companies. Firstly, this study proposes a "*novel and previously untested approach*" as a methodology for estimating an upper bound for beta estimates which was asserted to be significantly lower than the bottom of the range in by Ofgem's Strategy Decision. Elements of this approach utilise a short term horizon (of two years) to hypothesize significantly lower betas, and rely on a statistically insufficient and incomparable sample size. However, NERA replicated this analysis for the ENA (Figure 2.1) and find contradictory results.

**Figure 2.1 – NERA replication of observable beta analysis using notional gearing of 65%**



Source: NERA Analysis

NERA found that when adjusting for the gearing, the observable betas were around 0.93 for listed UK utilities and when excluding lower risk water utilities, the equity Beta value is greater than 1. Overall, there is no recent or robust evidence provided by Ofgem that supports the assertion that equity betas are lower than estimated over the long term or that provided in the Strategy Decision or by comparable regulators. When sensitising the CoE estimate by selecting 0.80 as an equity beta, which is the point estimate selected by Ofwat, there is still no justification that there is headroom in the CoE estimate of 6.0% (see section 2.1.4 below).

<sup>14</sup> *Financeability Study* (November 2012) commissioned by Ofgem undertaken by Imrecon working with Economic Consulting Associates

## SSEPD Supplementary Appendix 2 Cost of Capital

Ofgem assert that the CoE for DNOs is more influenced by the risk-free rate than equity beta and believe based on their analysis interest rates will remain low throughout ED1, something we have addressed below. We address the sub-components of Equity Beta below i.e. Asset and Debt Beta, in section 2.1.2.6, for completeness.

### **2.1.2.5 Reliance on Forward Interest Rates**

Ofgem conclude that regulated businesses are more sensitive to movement in risk free rates and, given forward yield curves, the CoE estimate is overly generous when reflecting the low real rates being seen at the moment. However, NERA highlight that the current expectation is for the Bank of England to slowly and gradually return interest rates to more normal conditions over the forthcoming few years. Accordingly, the average risk-free rate over ED1 will be nearly 100bps higher than current rates and the expected interest rate is significantly higher than forecast for NIE at the time of the CC decision<sup>15</sup>.

Additionally, Wright and Smithers concluded that there is *“no plausible case for any further downward adjustment in the assumed market cost of equity based on recent movements in risk-free rates (or indeed any other “recent market evidence”)*. As outlined in section 2.1.2.6, Wright and Smithers refute Ofgem’s reliance on risk free rates to pull down the TMR based on the body of available evidence. Therefore it is clear that changes in the risk-free rate or expectations of its movements are not supported by any body of research or evidence and as such Ofgem cannot place any reliance on this view.

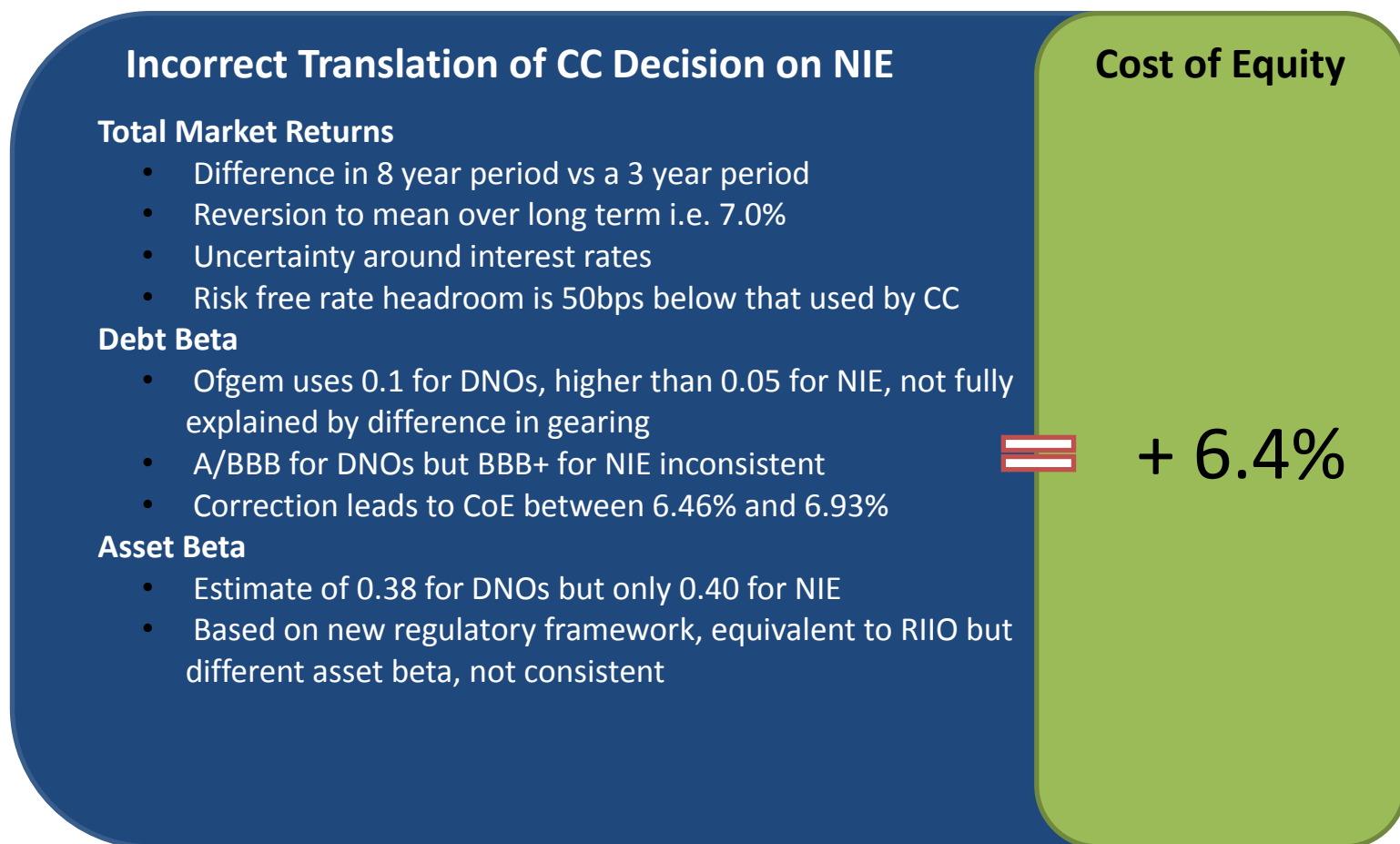
### **2.1.2.6 Translation of CC decision on NIE**

When translating the CC decision on NIE, there is strong evidence that Ofgem has made a number of errors. While we note Ofgem’s comments that it only used the CC parameters to inform the DD and do not rely upon this, adjusting for errors is essential to reaching an accurate and fully informed view of the CoE. NERA have provided a report on this translation on behalf of four DNOs which has been provided to Ofgem and the primary arguments are as follows:

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<sup>15</sup> NERA, *“A Response to Ofgem’s Cost of Equity Estimates in the RIIO-ED1 Draft Determination*

Figure 2.1– Summary of NERA conclusions on Ofgem translation of CC decision on NIE



When correcting for the errors Ofgem has made in translating the CC decision on NIE, it is clear that a cost of equity of at least 6.4% is justified and clearly there is no headroom in a CoE of 6%. Also, the CC decision was clearly stated to be at the top end of its range due to estimation risks on a short term horizon for NIE. Given RIIO is for eight years, it is inappropriate and inconsistent for Ofgem to assert there is no estimation risk and that any supposed premium on the actual CoE is *headroom*. The 6.0% is not directly comparable to the CC decision on NIE and no headroom exists (noting the eight year price control compared to the 3.5 year period remaining in the NIE price control remaining, as well as all other evidence presented).

Additionally, Wright and Smithers suggest that “*the primary factor explaining this difference [between Ofgem’s proposed reduction and the CCs] appears to be that the CC has given at least some weight to a model in which the expected market return is assumed to have been pulled down by falls in the risk-free rate. In Mason et al we argued against this model, pointing to a lack of any historical stability in the risk-free rate, and hence in estimates of the market equity premium. We believe that recent events have simply added to the weight of evidence against this approach*”. This therefore illustrates Ofgem’s interpretation of the CC to inform their view that there is *headroom* in the CoE is unsupportable at best and alludes to a CoE higher than 6.0%.



### 2.1.3 RPI Formula effect

Ofgem in its decision on equity market returns and methodology for Real Price Effects (RPEs) has applied an adjustment for the RPI Formula effect amounting to 0.4%. This is based on the impact of changes made by the ONS in its data collection methods in 2010 which resulted in an enduring increase of 0.32% wedge between RPI and CPI. The 0.4% adjustment is based on the total divergence between RPI and CPI and Ofgem have termed this “a step change relative to underlying cost inflation in the economy”<sup>16</sup>. As a result Ofgem have adjusted the CoE downwards by 0.4% before further adjustment for their view of changes in equity market returns, risk free rates, and equity betas. NERA<sup>17</sup> has provided an analysis for the ENA in relation to the RPI Formula Effect and evidence that 0.4% as an adjustment is excessive. It is NERA’s view that a more appropriate adjustment is no more than 0.15%; if not no more than 0.25% as proposed by Wright and Smithers. The key points that NERA raise in their report are as follows:

- Neither the ONS or the UK Statistics Authority have ever recommended that users adjust for changes to the RPI formula by deducting 40bps per year or indeed making any adjustment whatsoever.
- No other regulator or comparable estimate reflects a 40bps reduction in the CoE including the CC’s decision on NIE or their approach to RPEs (see SSEPD’s separate paper on RPEs).
- To identify the appropriate adjustment for the wedge between RPI and CPI, then RPI should be compared to RPIJ which uses a geometric mean at the elementary aggregate level but is otherwise equivalent to the RPI which illustrates a difference of no more than 30bps.
- Ofgem ignore both prior and future changes to RPI in particular that seek to address the wedge between RPI and CPI. For example, the National Statisticians Consumer Prices Advisory Committee (CPAC) finds in its pilot update report that their revised collection methodology for clothing results in a smaller gap between RPI and CPI, thereby reducing the formula effect by 12bps.

Therefore, when considering the direction of travel of the formula effect and considering a more appropriate comparison between RPI and RPIJ the difference should be no more than 20-30bps. This is supported by Ofgem’s own consultants, Wright and Smithers’, who concluded that at most an adjustment of 25bps should be applied. A more appropriate reduction should be no more than 15-20bps and with the expectation that over the coming eight year period the RPI formula effect will fall further.

### 2.1.4 Appropriate CoE Range

When considering the other estimates available for the appropriate CoE (Table 2.2) after adjustments on a comparable basis for DNOs the range is between 6.2% and 6.5%. This incorporates adjustments for the errors in translation of the CC decision on NIE, setting an equity beta at 0.90, and utilising a long run TMR range of 6.75% to 7.0%. When testing a range of pessimistic parameters, for example Ofwat’s DDs equity beta of 0.80 instead of 0.90 (which we strongly believe is overly negative), the CoE range is still between 5.8% and 5.9%. It is difficult to conclude anything other than the *headroom* assertion in 6.0% is unjustifiable.

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<sup>16</sup> Ofgem, Draft Determinations, (July 2014), p119

<sup>17</sup> NERA report for the ENA, “Review of Ofgem’s Estimate of the RPI Formula Effect” (August 2014)



**Table 2.2 – SSEPD’s CoE Parameters vs Ofgem’s DD and Other Comparable Estimates**

	SSEPD Slow Track BP	Ofgem Proposed CoE in DD	CoE Range with adjustment for RPI <sup>18</sup> and TMR		CC Decision on NIE Translation <sup>19</sup>	Ofwat DD
			Low	High		
Gearing	65%	65%	65%	65%	65%	62.5%
Risk free rate	1.60%	1.50%	1.65%	1.75%	1.50%	1.25%
Equity market returns	6.93%	6.50%	6.75%	7.00%	7.00%	6.75%
Equity risk premium	5.33%	5.00%	5.10%	5.25%	5.50%	5.50%
Equity beta	0.90	0.90	0.90	0.90	0.90	0.80
Cost of Equity	6.40%	6.00%	6.24%	6.48%	6.45%	5.65%

### 2.1.5 Conclusion on CoE

CoE is an area where there has been significant debate during the RIIO price controls. We agree with Ofgem’s view that further work is required across the industry in future on this regulatory parameter. However, at this time, for the reasons described above, no *headroom* can be evidenced or accepted. We have presented evidence that demonstrates that a CoE of 6.4% is robust and justifiable.

Given that we have demonstrated that no headroom exists in the CoE, we assert with evidence that Ofgem need to go further in correcting the deficiencies it identified in the CoD index mechanism. In this regard, we are mindful of Ofgem’s commitment to remaining within the 6.0% to 7.2% range as set out in its February equity returns decision, citing investor certainty as an important reason. By underfunding the CoD Ofgem is effectively going back on this commitment, by implication providing a CoE less than 6.0%, which will be damaging to long term investor sentiment<sup>20</sup>. The implied headroom derived from calculating the under provision in the cost of debt index is 48-49bps (based on 17bps at 65% gearing), which is unjustifiable under any measure of CoE.

***As such we still advocate 6.4% as an appropriate cost of equity and also propose that further adjustment is required on the CoD as outlined below in section 2.2 on the basis that there is no headroom in our proposed CoE estimate.***

<sup>18</sup> The RPI adjustment has been reflected in the risk free rate as recommended by Wright and Smithers and as applied by Ofgem.

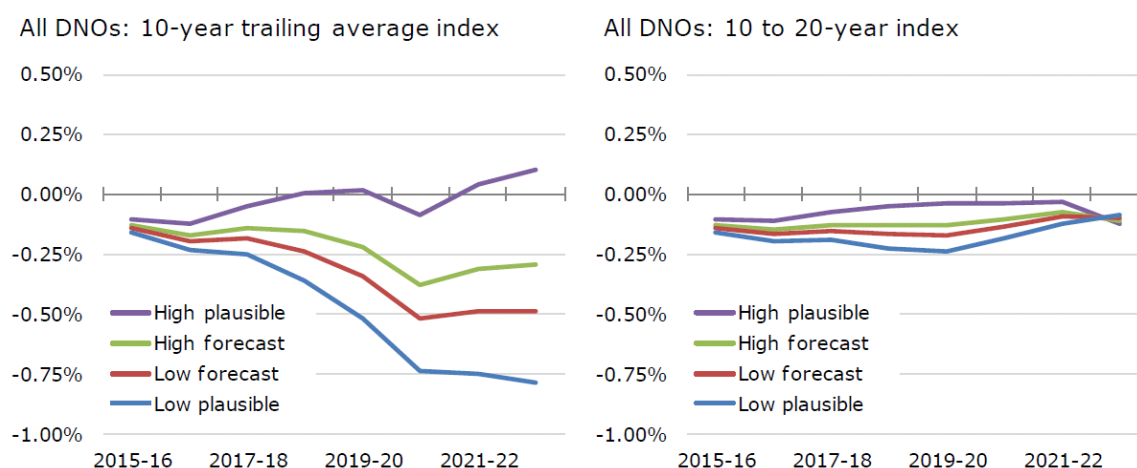
<sup>19</sup> Based on the analysis provided by NERA summarised in section 2.1.2.6.

<sup>20</sup> By relying on supposed headroom in the cost of equity to support underfunding the cost of debt, Ofgem are borrowing from one mechanism to address the failings of another, thereby providing DNOs with a CoE below their committed 6.0% minimum.

## 2.2 Cost of Debt

In Ofgem's DD, it identifies that the proposed CoD 10 year trailing average A/BBB iBoxx index is not appropriate for the industry. This is based on their analysis that when comparing the A/BBB index under a range of interest rate scenarios, the DNOs do not recover their costs of debt as an industry. This is illustrated in embedded debt and refinancing profiles (see Figure 2.2 below). Ofgem proposes to alter the 10 year trailing average A/BBB iBoxx index to a trombone mechanism which will incorporate each additional year of index data until the index reaches 20 years, reflective of DNO's typical bond tenor<sup>21</sup>.

**Figure 2.2 – Forecast cost of debt allowances less forecast debt costs**



Source: Ofgem Draft Determinations, Financial Issues, page 12

In Figure 2.2, it is clear that under a 10 year trailing index the exposure to DNOs was significant under a range of interest rate scenarios and that when moving to the trombone index this reduces that risk to a degree (but not wholly – see section 2.1.2.2). The ENA asked NERA<sup>22</sup> to undertake analysis on behalf of the DNOs including to replicate Ofgem's analysis. NERA's work has confirmed that Ofgem's analysis of the trombone index is correct, resulting in 17bps under performance (under recovery of actual debt costs) across ED1. Although we are supportive of the principle of the trombone mechanism, it is unsatisfactory that the proposal results in demonstrable under funding. Accordingly, further amendments are required to achieve an appropriate starting point on the trombone mechanism for the industry. Ofgem justify under funding with reference to supposed headroom in the CoE and the presence of a "halo effect" whereby DNOs can issue debt below the index due to the favourable view the capital markets have of regulated businesses.

We have identified that there is no *headroom* in the CoE, and now address the short comings in Ofgem's analysis on the CoD. We also propose an alternative CoD calculation that is closer to the industry actual debt costs throughout ED1.

<sup>21</sup> Ofgem conclude in their DD that it would be inappropriate to reward or penalise individual DNOs for their actual cost of debt relative to the selected mechanism and must select the most appropriate benchmark for assessing efficient financing costs (p10, Financial Issues Supplementary Annex)

<sup>22</sup> NERA report for the ENA, "Analysis of Ofgem's Cost of Debt Draft Determination for RIIO-ED1"

### 2.2.1 Halo effect

Ofgem asserts that the requirement to provide a mechanism for DNO's to recover (on average) their actual costs of debt is not appropriate due to the existence of a "*halo effect*". Ofgem states that DNOs have been able to issue debt below the index for comparable rated companies due to the favourable view the capital markets hold of regulated businesses. NERA<sup>23</sup> has provided a report on behalf of the ENA which provides substantial evidence to the contrary and also correct for Ofgem's errors.

NERA highlight that when aligning the tenor of DNOs debt with the index a large proportion of the perceived "*halo effect*" disappears. Ofgem's analysis utilises the Yield to Maturity (YTM) of DNO bonds which have a shorter average maturity than the iBoxx index. Ofgem do not adjust for this difference, instead subtracting the same gilt yield from all bond yields. Therefore the comparison is not on a like-for-like basis whereby the DNO bond index has a weighted average tenor of 17 years compared to the index' 20 years. The impact of the average difference is exacerbated by the fact that Ofgem's index includes a number of very short maturity bonds, which skews the result. Therefore Ofgem should adjust for the concavity of the yield curve whereby including DNO bonds with maturity below the index, there is a decrease in yield disproportionately greater than the decrease in maturity.

Ofgem also use an inappropriate index benchmark. Prior to 2008, utility bonds were mainly A-rated (excluding wrapped debt). Therefore the A/BBB index used by Ofgem is an inappropriate benchmark when comparing debt over that period. With a higher proportion of utility bonds now BBB rated post financial crisis new debt issues are more in line with the A/BBB iBoxx index. Figure 2.2 illustrates the corrections in Ofgem's analysis on the "*halo effect*" provided by NERA, and shows that when correcting for the index benchmark there is a reduction in the "*halo effect*" by 23-25bps.

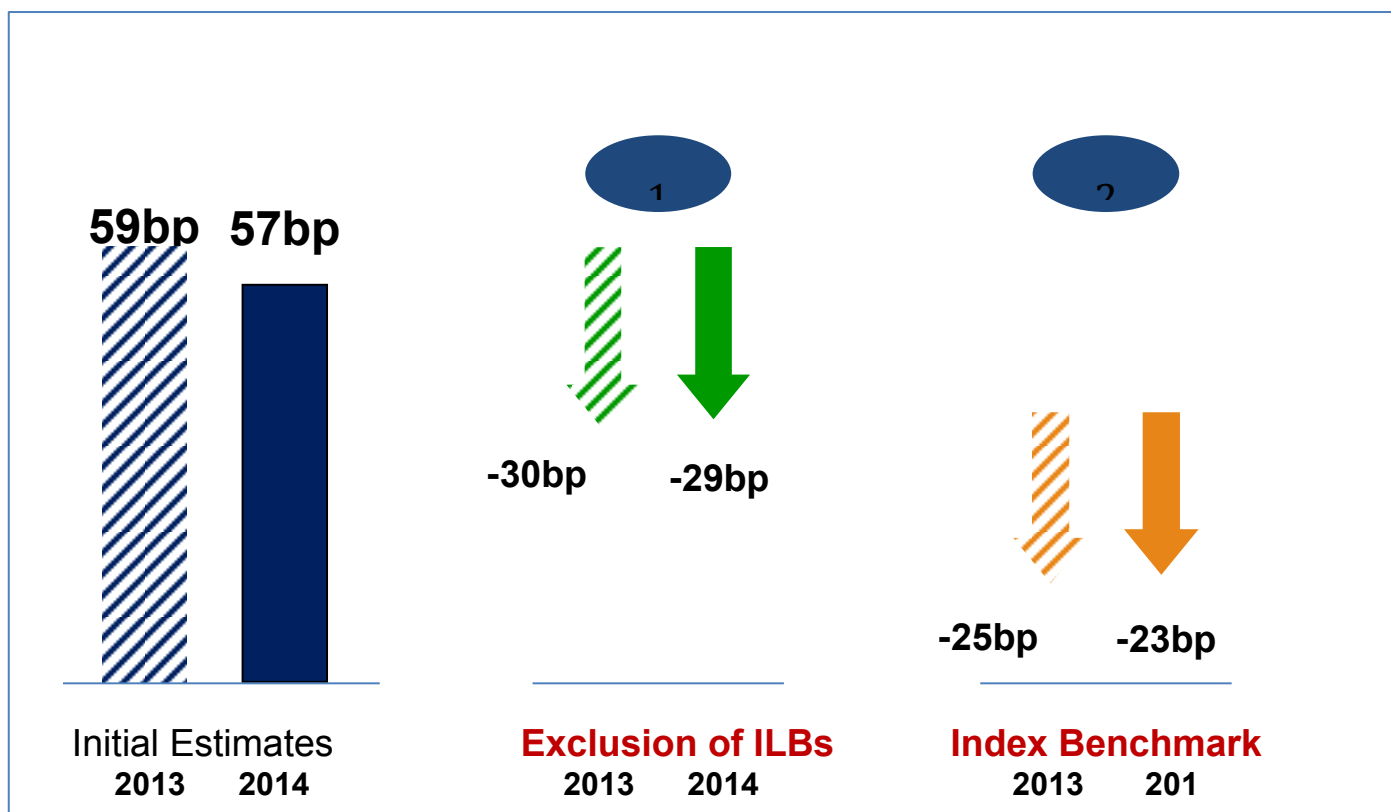
The "*halo effect*" is further diminished when accounting for the impact of Index Linked Bonds (ILBs). Unique conditions in capital markets prior to the financial crisis resulted in a series of Index Linked debt issues which have never been repeated (see Figure 2.4). Between 2005 and 2007 almost 55% of the current outstanding total of index linked issuance took place and is considered to have been fuelled by '*asset swap investors*' such as Dexia and Depfa. The view of capital markets (based on discussions with our banks) is that these conditions are not likely to exist again in the next 10 year period at least, thereby covering the ED1 period. As such their inclusion in any analysis on the "*halo effect*" is misrepresentative of enduring debt conditions and therefore no "*halo effect*" will exist again in the future particular over ED1. When excluding ILBs from Ofgem's analysis, NERA identify a further reduction in the perceived "*halo effect*" of 29-30bps, thereby reducing any perceived "*halo effect*" to 4-5bps at most.

The combination of these factors thereby eliminates any perceived "*halo effect*".

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<sup>23</sup> NERA report for the ENA, "*A Response to Ofgem's Proposals on the Cost of Equity and Debt for RIIO-ED1*", Appendix A

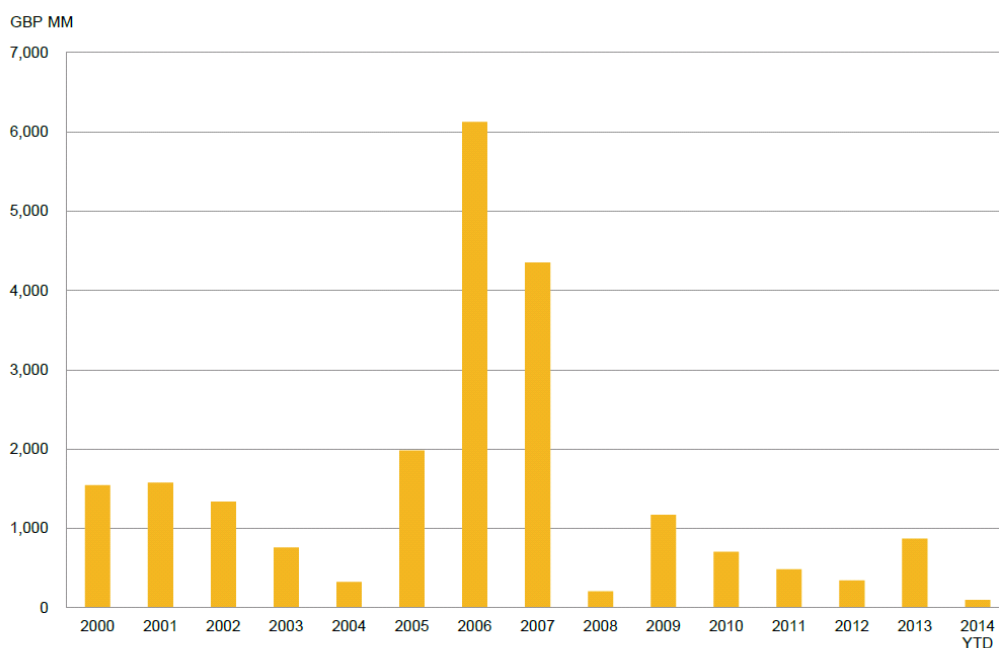
Figure 2.3 – NERA analysis for Long-term corrections in actual debt costs and debt



NERA uses “current yields” rather than “coupon yields” (i.e. accounting for non-par issuance) as a benchmark against the iBoxx total return index. The impact on the final spread estimates due to the methodology is significant.

Source: NERA report for the ENA, “Analysis of Ofgem’s Cost of Debt Draft Determination for RIIO-ED1”

Figure 2.4 – UK Corporate Inflation Linked Bond Issuance (2000 – present)



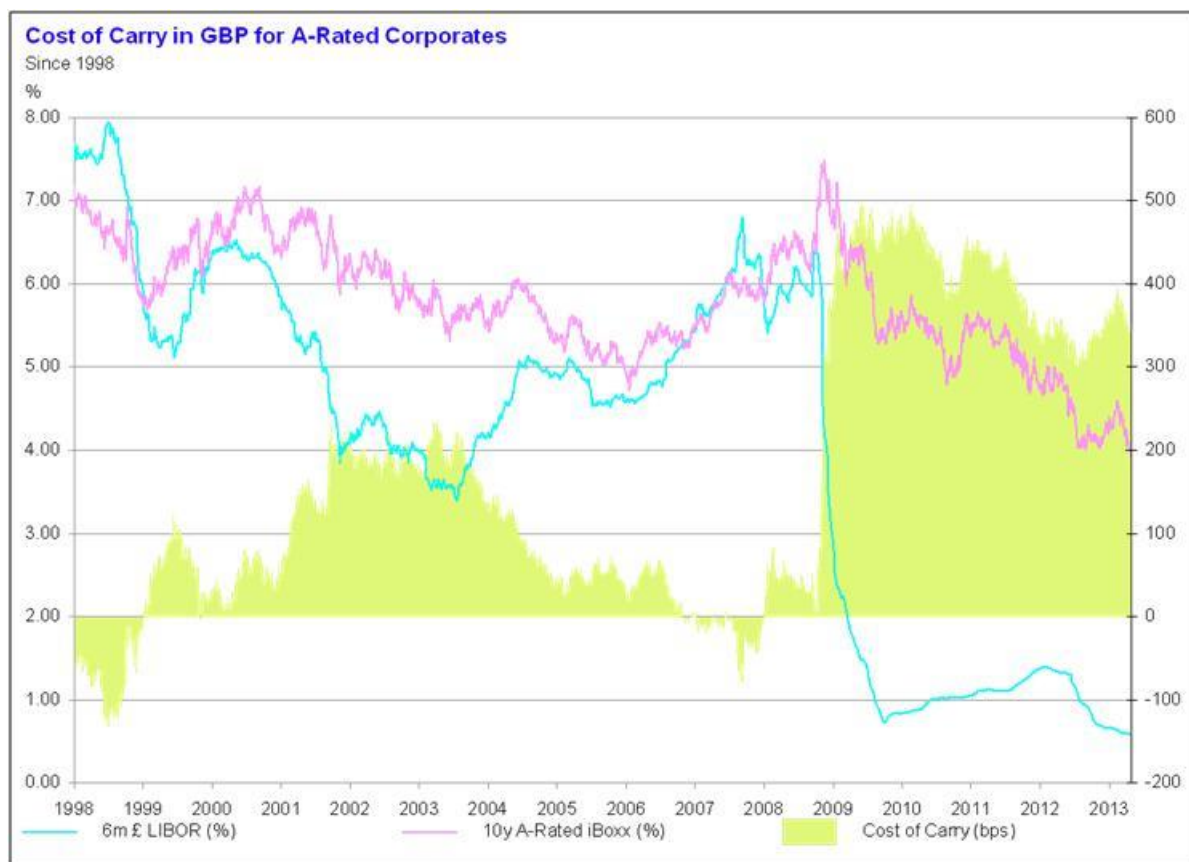
Source: Morgan Stanley

### 2.2.2 Costs of Carry

Another item in which Ofgem fail to consider is the costs of carry. This amounts to 30bps on new debt issuance. Taking into account this cost further supports a change in the new trombone cost of debt index mechanism.

This is the cost of investing pre-funding amounts at a relatively low short term interest rates. Historically, the carry cost of raising finance long term in the bond market and depositing cash in a libor-based account was minimal, or was even a benefit given the inversion in the GBP yield curve. However, with the steepening of the curve, rising credit spreads and falling deposit rates, the cost of prefunding and maintaining liquidity is significantly positive. Figure 2.5 illustrates the significance of the cost of carry in DNO actual debt costs.

**Figure 2.5 – Cost of carry on A-rated company bonds**



*Source: Morgan Stanley*

This cost would be significantly higher if the average cost of carry for A- rated Corporates of 4.0% over the last four years were to persist. This has been excluded from Ofgem's analysis when calculating the appropriate CoD allowance for RIIO-ED1.

### 2.2.3 Conclusion on Cost of Debt

Following on from the above analysis on the effectiveness of the proposed cost of debt index trombone and the absence of the “halo effect”, the mechanism falls significantly short of practical funding requirements. When correcting for errors in Ofgem’s analysis and including the costs of carry, the only appropriate cost of debt mechanism is a 20 year index. However, in the absence of the data in the iBoxx index the most credible alternative is a 15 year starting point in a trombone mechanism adding one year of data on until the index reaches 20 years (see Figure 2.6).

**Figure 2.6 – Cost of Debt index trombone (A/BBB) – starting at 15 years**

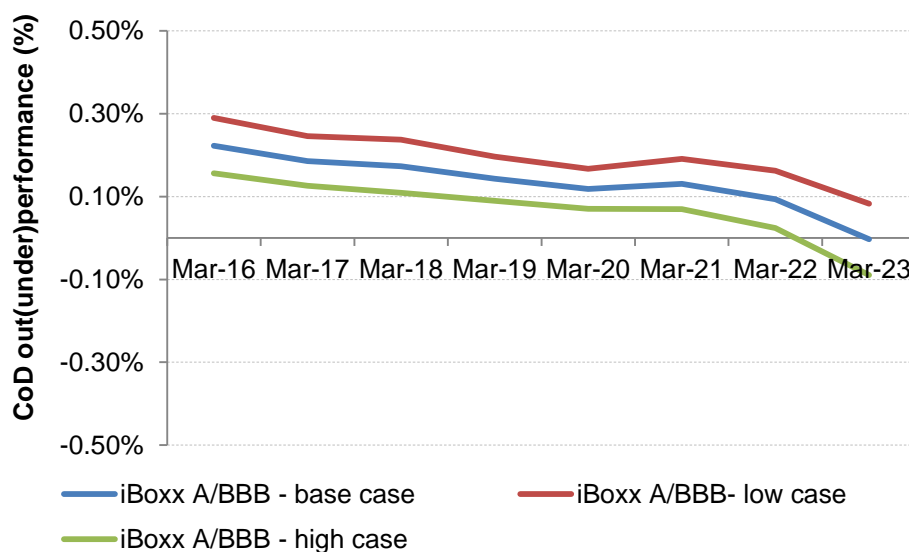


Figure 2.6 suggests that there might be a small over statement of cost of debt allowances. However this assumes that DNOs can issue debt at the average of A/BBB and this is highly unlikely with most DNOs now BBB rated. When adjusting this analysis for that the perceived slight outperformance falls significantly<sup>24</sup>.

The 15 year start point more accurately reflects the current and future tenor of DNO debt and enables the industry to recover actual debt costs while maintaining the strength of the efficient financing incentive. It also encourages the right DNO financing behaviour of financing long term assets with long term debt, provides a transition period for the industry towards an efficient financing benchmark, and achieves a 20 year index by the start of ED2.

***The analysis demonstrates industry under performance on the index selected by Ofgem. When translating this underperformance to the CoE, the headroom in the CoE must equal almost 50bps. This is evidently not credible as presented in our evidence on the appropriate CoE estimate for DNOs and flaws in Ofgem’s CoD analysis.***

<sup>24</sup> See NERA report, section 4.2, figure 4.3 which illustrates that DNOs underperform the index before the end of ED1 and when factoring in the costs of carry the underperformance is more pronounced (not provided graphically).

### 2.3 Overall Conclusion

We believe our analysis demonstrates that there is no *headroom* in the Cost of Equity and the Cost of Debt mechanism is insufficient for the industry.

As a result it remains our strong view that the Cost of Equity, of 6.4%, proposed in our slow track business plan remains appropriate given the relative riskiness of our plan, its efficiency assumptions, our ability to achieve low double digit RoRE as a *best performing* DNO and the series of compelling theoretical justifications.

For the Cost of Debt, we propose that the iBoxx index mechanism is adjusted to appropriately reflect the industry position whereby a starting point of 15 years for the Trombone extending to 20 years is more appropriate to enable DNOs to recover their actual debt costs efficiently during ED1.