Annex H: Rate of Return Adjustment Mechanism

1.1 In Chapter 12 we explain why we think it will be appropriate for the UR to make an ex post adjustment to the RP6 allowed costs of debt as part of the RP6 review of NIE's price controls.

Cost of debt adjustment mechanism – design

1.2 Our intention is that the adjustment mechanism will operate as follows. Table 1 reproduces the Chapter 12 'baseline' estimates of NIE's cost of debt. The inputs highlighted in yellow are to be regarded as holding assumptions that apply until the business enters into new borrowing(s) either to refinance existing debts or to fund new investment. All other inputs into the calculations are fixed allowances.

Table 1: RP6 cost of debt calculation

Company	Average nominal cost of debt, RP6			
NIE			Current market rates	3.3%
	Average interest costs	6.4%	Forward rate adjustment	0.45%
	Transaction costs	0.2%	Transaction costs	0.2%
	Embedded debt	6.6%	Cost of new debt	3.95%
			4:5 weighted average	
			Weighted average cost of debt = 5.1%	

1.3 At the time of the RP7 review, our expectation is that the UR will replace the figures highlighted in yellow with replacement figures based on estimate(s) of the prevailing market interest rates for A and BBB rated corporate borrowers at the point(s) in time when the company raises new debt. The replacement figure(s) will be obtained as follows:

- data source – the UR will use information about bond market prices/yields contained within the Markit iBoxx database; and

- index family – the UR will refer specifically to the iBoxx £ non-financials A and iBoxx £ non-financials BBB indices;

- tenor – this family of indices contains separate series for tenors of bond of 1-3, 3-5, 5-7, 7-10, 10-15 and 15+ years, as well as other more aggregated data. The UR will read off the reported yield from the series[1] that most closely matches the tenor of the debt that NIE raises. For example, if the company raises debt with a tenor of 12 years, the UR will refer to the 10-15 years A and BBB indices. If the company raises debt with a tenor of 6 years, the UR will refer to the 5-7 years series; and

- averaging – the UR will average the A and BBB indices. The reading will be for the average reported yield on the relevant series over the whole of the calendar month in which NIE carried out its financing exercise; and

- sharing – the replacement figures, in place of the cells highlighted in yellow, will be set 80% of the way between the original final determination and the relevant iBoxx readings.

1.4 This is consistent with the design of the GD17 cost of debt adjustment mechanism.

1.5 NIE has suggested several possible refinements to this design. For example, it has said that the reading we take from the iBoxx indices could be the average yields for the period of 10 days before and 10 days after NIE issues debt. It has also said that the 20:80 sharing rule could be eliminated.

1.6 We consider that there are benefits in sticking with the GD17 design so that we are able to present a common cost of debt adjustment mechanism to the wider investor community. We also disagree with NIE's suggestion to eliminate the 20:80 rule on the grounds that the sharing factor gives NIE an incentive to time its financing exercises to achieve the lowest possible cost of debt for customers.

Cost of debt adjustment mechanism – worked example

1.7 The computations that the UR will need to perform to come up with revised cost of debt allowances can be illustrated with a simple worked example. For the avoidance of doubt, the figures that follow are dummy numbers that have been invented solely for the purposes of this illustrative analysis.

1.8 Suppose that NIE issues new bonds in August 2018 and that in this month the average values of the iBoxx indices are as set out in Table 2.

Table 2: Illustrative values for the yields on iBoxx £ non-financials A and BBB indices

Tenor	Average yield A series, month	Average yield BBB series, month
1-3 years	2.00%	2.20%
3-5 years	2.60%	2.80%
5-7 years	3.00%	3.20%
7-10 years	3.40%	3.60%
10-15 years	3.60%	3.80%
15+ years	3.70%	3.90%

---

[1] using iboxx rules

1.9 The UR will read off the relevant row from the table, according to the tenor of the debt that NIE issues, and replace the sum total of the figures in yellow in table 1 with that number. For example, if NIE issues debt with a 12-year tenor, the UR would input a figure of 3.70% (as the average of the 3.60% yield on A debt and the 3.80% yield on BBB debt) into the cost of debt calculation, in place of the 3.3% + 0.45% holding assumption. Likewise, if NIE issues debt with a 6-year tenor, the UR would input a figure of 3.10% into the cost of debt calculation.

1.10 Table 3 shows how the recomputed cost of new debt will flow through into 20:80 sharing and from there on into the allowable WACC.

Table 3: Illustrative application of the adjustment mechanism, PNGL

	iBoxx reading = 3.7%	iBoxx reading = 3.1%
Revised, post-refinancing allowed nominal cost of new debt	3.91%	3.43%
Revised, post-refinancing allowed overall nominal cost of debt	5.11%	4.84%
Revised, post-refinancing allowed overall real cost of debt	1.85%	1.59%
Revised, post-refinancing overall WACC	3.28%	3.16%

1.11 Annex I sets out the computations in greater detail, and also shows how the UR would expect to handle multiple debt raising exercises and/or a gradual draw down of debt over the RP6 period.

Method of true-up

1.12 The adjusted rate of return will be considered as part of the RP7 review and also as part of tariff setting process during the RP6 period. This is because a change to the rate of return will impact on maximum regulated revenue calculations in each of the years of RP6 which in turn drives changes in tariffs. This should avoid any significant build up of under or over recoveries (K correction factor) due to the adjusted rate of return feeding into the RP7 period.