6 Finance

Ours is a long-term business. We invest in, maintain and manage assets which will deliver for our customers and stakeholders over many decades. As such, it is fair that the cost of renewing, expanding and maintaining our network is spread across the generations of customers who will benefit from it. Spreading this cost is one of the main functions of the regulatory price control

6.1 We need to pay for equipment, supplies, labour and services when we install and use them. We also have to pay for our day-to-day operating expenditure as and when it is incurred. Ofgem has decided that the period over which we can recover our investment costs will be 45 years, an increase of 25 years over previous price controls. This creates a significant mismatch between when we spend money and when we recover the cost through our service charges.

6.2 We bridge this cash flow gap by raising the capital (cash) we need to invest and operate through a combination of shareholder investment (equity) and borrowing (debt).

6.3 Ensuring that the spread of the allowances to recover these costs and the costs of paying the interest on the debt are sufficient to ensure we can meet all our obligations year to year is the key factor to ensure our ongoing financeability.

Developments since July 2013

6.4 Since the previous version of our Business Plan there have been a number of developments in relation to the potential allowances for the Cost of Capital under the RIIO-ED1 price review.

6.5 In our previous plan we set out our concerns about the shortfall in the allowances for Cost of Debt when compared to our actual, efficiently incurred, debt costs. Based on guidance from Ofgem we assumed the Fast Track Reward of £46 million (2012-13 prices) in our forecasts, which together with our innovative proposal to voluntarily defer £25 million of allowed revenue from the last year of DPCR5 into RIIO-ED1, generated a total of some £71 million of additional revenues. Our modelling showed that this additional revenue across the eight years of RIIO-ED1 was sufficient to maintain key financial metrics at levels required to sustain stable investment grade credit ratings. These forecasts also assumed our proposed level for the Cost of Equity at 6.8% which we justified based on detailed reports from Oxera covering the key aspects of the Capital Asset Pricing Model (“CAPM”) including a relative risk analysis supporting an Equity Beta of 0.91.

6.6 Based on this proposed package we were able to conditionally accept that the Cost of Debt allowance should be based on Ofgem’s proposal of a simple 10-year trailing average of single A and BBB iBoxx indices of bond yields less the implied 10-year RPI inflation rate.

6.7 Since Ofgem’s decision not to Fast Track our plan and accept the proposals in the round and to assess plans against a “central reference point” for Cost of Equity of 6.3% we have revisited our Financing proposals and in particular the steps required to ensure the company maintains stable credit ratings and remains financeable.

6.8 As a consequence we are no longer able to accept Ofgem’s policy position for the Cost of Debt allowance and we propose an alternative proposal for different weightings to the trailing average calculation. This amended Cost of Debt allowance forms a key part of our updated business plan.

6.9 In addition, Ofgem’s decision to reduce the Cost of Equity to 6.3% and potentially lower, given its most recent decision published on the 17 February 2014, creates further downward pressure on key financial metrics.

6.10 We believe that the uncertainty over Ofgem’s final decisions on allowances for the Cost of Capital, taken together with the rest of the overall price review settlement for factors such as potential Information Quality Incentive (“IQI”) Reward could create concerns for our key financial stakeholders, including the Credit Rating Agencies but also lenders and investors. Therefore we summarise in this Chapter our proposals for the Cost of Capital allowances as part of our overall business plan but the detailed analysis supporting our proposals is set out in Annex 25 which will be provided to Ofgem only and will not be published at this stage.

6.11 Ofgem has a duty to ensure a DNO can finance its activities under section 3A of the Electricity Act 1989. This means the regulatory settlement must allow us to fund our efficient investment, operating and interest costs and pay a reasonable return to investors.

6.12 Our licence requires that we maintain an 'Investment Grade' credit rating, which allows us to access the global capital markets and helps us negotiate efficient interest rates on our borrowing. Our current credit ratings are:

- Standard and Poor's - BBB+ Stable outlook
- Fitch Ratings Limited - BBB+ Stable outlook
- Moody's Investor Services Limited - Baa1 Stable outlook

6.13 We are confident that given Ofgem's duties and our performance as a leading and efficient DNO we will secure an acceptable package for RIIO-ED1 that, in the round, provides for the long-term sustainability of the business. Our financial stakeholders will then be able to assess the overall settlement and our performance against incentive mechanisms when the final details are known in December 2014.

6.14 The following sections consider the two components of the Cost of Capital allowance in our plan, namely the allowance for our borrowing costs (the Cost of Debt allowance) and that to compensate our shareholders for the money they have invested (the Cost of Equity allowance). We have set out the other components of the package which determine our total revenues for the eight-year period, such as capitalisation rates and depreciation lives, the options we have considered and the basis for the decisions we have made. These sections reflect our updated proposals given Ofgem's decision not to Fast Track our business plan in July 2013 and the recent decision on the Equity Market Returns[3]. Detailed analysis and all supporting reports are in Annex 25.

Cost of Equity

Shareholders seek a return on their investment which is appropriate for the industry sector in which it is invested. As a general rule, the more risk they take, the higher return (reward) they will seek. Investment in regulated UK industries is seen as relatively low risk.

6.15 We calculate our Cost of Equity through a number of contributing components:

- A Risk Free Rate, which is the minimum return we may reasonably expect on long-term, AAA-rated Government debt
- An Equity Risk Premium, which reflects the additional return needed to attract investors into the equity market
- An Equity Beta, which is a 'multiplier', applied to the Equity Risk Premium to reflect the risk of a stock relative to the broader equity market

6.16 We use an established investment risk assessment technique – the Capital Asset Pricing Model (CAPM) – to determine our Cost of Equity as follows:

- Risk Free Rate + (Equity Risk Premium x Equity Beta)

[3] See "Decision on our methodology for assessing the equity market return for the purpose of setting the RIIO-ED1 price controls" published 17 February 2014

6.17 Ofgem had set a Cost of Equity range of 6.0% to 7.2% (post-tax real) for all the RIIO price controls and has agreed the following Cost of Equity allowances in those price controls which have now completed.

Price Control	Risk-free Rate	Equity Risk Premium	Equity Beta	Cost of Equity
Gas Distribution (RIIO-GD1)	2.0%	5.25%	0.90	6.7%
Gas Transmission (RIIO-T1 Gas)	2.0%	5.25%	0.91	6.8%
Electricity Transmission (RIIO-T1 Electricity)	2.0%	5.25%	0.95	7.0%

6.18 In the decision document published on the 17 February 2014 Ofgem did not include a detailed breakdown of the components of the CAPM that it had used to derive its "central reference point" of 6.0% nor for the 6.4% awarded to Western Power Distribution ("WPD") under the Fast Track decision. We can see no logic for a difference in the estimated Risk Free Rate or Equity Risk Premium components of the CAPM since these have to be based on the updated view of observed market data.

6.19 Therefore we conclude that Ofgem's differential between the "central reference point" of 6.0% and the 6.4% awarded to WPD can only be justified based on different allowances for the Equity Beta and we derive these in the table below.

6.20 This shows the comparative components of the CAPM as allowed for in most DNO's July 2013 plans, the Competition Commission decision for Northern Ireland Electricity and our interpretations of Ofgem's November 2013 and February 2014 publications.

CAPM Component	DNO ED1 Fast-track proposals	Ofgem ED1 Nov 2013 Ref Point	CC NIE	Ofgem Feb 2014 Ref Point Assumed build up	Ofgem Feb 14 WPD Fast Track Assumed build up
Risk Free Rate	2.00%	1.60%	1.25%	1.60%	1.60%
Market Risk Premium	5.25%	5.25%	4.75%	4.85%	4.85%
Equity Market Return	7.25%	6.85%	6.00%	6.45%	6.45%
Asset beta	0.38	0.38	0.42	0.32	0.35
Debt beta	0.10	0.10	0.10		
Equity beta	0.90	0.90	0.75	0.91	0.99
Cost Of Equity	**6.70%**	**6.30%**	**4.80%**	**6.00%**	**6.40%**
Cost Of Debt	2.72%	2.72%	3.40%	2.60%	2.60%
Gearing	65%	65%	50%	65%	65%
WACC	**4.11%**	**4.00%**	**4.10%**	**3.80%**	**3.90%**

6.21 Such an assessment would appear to be consistent with Ofgem's February 2014 Decision document which states that:

> *"In light of this central reference point, we assessed that DNOs' cost of equity proposals would only be satisfactory for a company that commits itself to especially tough cost efficiency assumptions. Our assessment was that only WPD's plans would deliver the cost efficiencies consistent with their financial proposals".*

6.22 On the basis that an especially tough cost efficiency proposal links to the level of relative risk in a DNO's plans, failure to deliver the forecast efficiencies is largely a risk for shareholders and so should be reflected in the Equity Beta.

6.23 In Ofgem's assessment of our July 2013 Business Plan it stated:

> *"We conclude that it is a strong overall plan. However, at this stage, we are not convinced that its proposed expenditure allowances are efficient."*

6.24 As set out in Annex 14 our review of Ofgem's methodologies for making its assessment of comparative efficiencies of the Fast Track business plans reveals that a small number of inappropriate decisions were made that had a substantial effect on the results. For example, had Ofgem decided to place more weighting on Totex models, as indicated in its March 2013 Strategy Decision, then it would have concluded that our plan was the most cost efficient.

6.25 In this version of our business plan we submit some amended cost proposals and provide compelling additional justification to support certain areas of our network investment and business support cost proposals. We are confident this evidence will address Ofgem's concerns and the uncertainty expressed in the Fast Track decision.

6.26 We therefore conclude that our this version of our business plan meets Ofgem's definition of "especially tough cost efficiency assumptions" and that accordingly the equity beta measured risk associated with our proposed package is commensurate with that awarded to WPD in the Fast Track assessment. However, we recognise that under Ofgem's emerging methodology for the RIIO-ED1 price review, some premium should attach to Fast Track status. Therefore we accept that on a proportionate basis the Cost of Equity for our business plan should be 6.3%. We provide a break-down of our proposed CAPM components below.

6.27 In the table above we showed our assumed build up of Ofgem's central reference point and the WPD allowance. We have also cross-checked our 6.3% proposal against the fundamentals of the CAPM. We have taken the upper-end of the ranges for the RFR and ERP identified by the CC of 1.5% and 5% respectively. Our basis for this decision is the analysis of Mean Reversion which we set out in Annex 25 and the longer timeframe of RIIO-ED1 period when compared to the NIE review (2012-2017).

6.28 From our assumed build-up of the WPD allowance above we infer an Asset Beta of 0.35 which at a gearing level of 65% translates to an Equity Beta of 0.99%. We take a marginally lower Asset Beta for our base case of 0.34% which at 65% gearing translates to an Equity Beta of 0.96%. This then generates an overall Cost of equity of 6.30%.

6.29 In selecting this level of Equity Beta we note the published arguments pointing to lower levels of Equity Beta for regulated utilities and indeed Ofgem's statement that it will carry out further work on the absolute levels of Equity Beta ahead of the RIIO2 price reviews. However we have to use the inferred levels from Ofgem's February 2014 Decision document within this same RIIO-ED1 price review as the basis for our comparative analysis.

6.30 We also refer to the Comparative Risk Analysis included in our July 2013 plan which was based on work by Oxera which supported an increase in the Equity Beta when compared to the risks in the DPCR5 and RIIO-GD1 price reviews. This included such factors as cash flow risk for the levels of Totex compared to opening RAV, pension cash flow risk and those linked to the longer 8-year price review. This analysis supports the selection of Equity Beta at these levels on a comparative basis. Ofgem has moved away from this focus on comparative cashflow risk it used in the RIIO-GD1 and RIIO-T1 reviews in its assessment of DNO proposals for Equity Beta and gearing. We have therefore not repeated the analysis but remain of the view that it is robust and credible and supportive of our proposed base case position.

6.31 In its Fast Track decision document Ofgem asked companies to submit plans in March 2014 including an assessment of their contingency position if Ofgem fully reflects its "minded to" position of a Cost of Equity at 6.0%. On a consistent basis with our base case proposal we have calculated the lower level of Equity Beta required to result in a Cost of Equity of 6.0% and this is 0.90%.

6.32 In Annex 25 we outline in detail our concerns at the potential impact on key financial metrics of such a reduction whilst holding other aspects of the CAPM constant. We conclude that a reduction in notional regulatory gearing would be necessary to ensure financeability and propose a reduction to 62.5% gearing. We consider that such a reduction is consistent with a further small reduction in the Equity Beta to 0.89%.

6.33 CAPM Components of proposed Base case and potential adjustments for Cost of Equity of 6.0%:

CAPM Component	ENWL base case proposal	Impact at Ofgem Ref. point	Adjustment to notional gearing
Risk Free Rate	1.50%	1.50%	1.50%
Market Risk Premium	5.00%	5.00%	5.00%
Equity Market Return	6.50%	6.50%	6.50%
Asset beta	0.34	0.315	0.335
Debt beta			
Equity beta	0.96	0.90	0.89
Cost of Equity	**6.30%**	**6.00%**	**6.00%**

6.34 In conclusion our base case proposal is for a Cost of Equity of 6.3% on the basis that our overall business plan is sufficiently challenging to justify a proportionate Equity Beta to that inferred from Ofgem's decision and allowance for the Fast Track companies. We have used the levels for the RFR and ERP consistent with the Competition Commission's range for the NIE decision.

6.35 In the event that Ofgem assesses that its "minded to" position should apply, we will require notional gearing to reduce to 62.5% at a Cost of Equity of 6.0% to maintain a sustainable plan

Cost of Debt

Ofgem has introduced a 'Trailing Average' index method to set the Cost of Debt allowances for Electricity and Gas Transmission and Gas Distribution. Ofgem has decided to implement this mechanism for RIIO-ED1.

6.36 The index is based on actual Corporate Bond yields on a daily basis over a preceding 10-year period and averages these to set the Cost of Debt for the current year. The trailing average theoretically removes some of the distortion caused by the use of spot interest rates and creates an objective benchmark for DNOs' debt costs.

6.37 We have some serious concerns about this approach and as we set out in the update for developments since July 2013 are no longer able to accept this mechanism as a basis for setting our Cost of Debt allowance as part of this version of our business plan. The calculation of the index is such that for the first year of RIIO-ED1, nine of the ten years are already fixed. Interest rates in the next few years would have to materially increase to prevent the Simple Trailing Average being lower at the end of RIIO-ED1 than at its beginning. This is the most likely scenario given current all time low interest rates. Based on a forecasting methodology from leading UK banks, including Lloyds Bank and Royal Bank of Scotland, we expect the average real Cost of Debt allowance during RIIO-ED1 will be 2.45%.

6.38 We set out in Annex 25 our analysis and detailed proposals. In summary the simple trailing average allowance will be insufficient to cover our actual cost of debt over the RIIO-ED1 period. We note that the CC allowed NIE an allowance based on 80% of its embedded debt costs and 20% reflecting forecast costs for new debt broadly based on the simple trailing average mechanism. This very much reflected NIE's debt profile during the price review and is very similar to Electricity North West's debt profile. We also note in its recent publication Ofwat has set an allowance for the PR14 review on a similar basis of 80% embedded cost allowance and 20% for new debt based on the water companies' debt profiles.

6.39 We consider that as part of an overall Cost of Capital settlement the CC would most likely grant us an allowance based on 80% of our efficiently incurred embedded cost together with a Cost of Equity allowance that would likely be aligned with its approach for NIE.

6.40 We have calculated what this allowance would be using 80% of our embedded debt costs at April 2015 and 20% using the simple 10-year trailing average. This does give us an enhancement to allowances over what we forecast the simple 10-year trailing average to be.

6.41 However we considered alternatives in an attempt to submit a proposal that is consistent with Ofgem's RIIO-ED1 Strategy Decision where Ofgem said:

> *"if a company can show in its business plan that the 10-year simple trailing average index is not appropriate for its circumstances, it can propose modifications. We will consider the merits of such a proposal when evaluating the business plan and would need to satisfy ourselves that the adoption of a different approach is both robust and justified."*

6.42 We propose two modifications to the mechanism:

6.43 Firstly, given Electricity North West's BBB band credit rating we propose that our allowance should only be made up of the iBoxx BBB band bond index data rather than the average of both the A and BBB band indices

6.44 Secondly, we propose using the 15-years of available iBoxx data at the beginning of RIIO-ED1 and then continuing to extend the trailing average up to 20-years as new data is incorporated. This term better matches the maturity profile of the company's' debt and its worth remembering that the original decision to adopt a 10-year trailing average of the iBoxx indices was heavily influenced by the then available data set.

6.45 Based upon our forecasts, the resulting adjustment to the simple 10-year trailing average has essentially the same impact as using the CC's 80% of embedded cost allowance we refer to in paragraph 6.38. See Annex 25 for the specific forecast values and resulting financial ratio analysis.

6.46 In summary this version of our Business Plan is based on our proposed changes to the cost of debt methodology. We consider that these two changes are entirely consistent with the underlying principle of adopting a mechanistic process for setting the allowance through ED1 and require very little changes to the annual rate setting process for inclusion in the Price Control Financial Model.

Gearing

6.47 Gearing describes the proportionate relationship between equity and debt. In our base proposal we propose to maintain our existing gearing level of 65%, which means that 35% of our total capital comes from investor funds and 65% comes from borrowing.

6.48 Gearing at these levels remains consistent with the credit rating agencies' guidance for an A-/BBB rated network company.

6.49 As set out above in paragraph 6.35 we consider that changes to the notional gearing are an effective financeability solution where the core cost of equity allowance and the overall WACC is insufficient to maintain metrics consistent with a solid investment grade credit rating. Accordingly if Ofgem adopts its "minded to" position on the Cost of Equity allowance then we propose a reduction in notional gearing to 62.5%.

Capitalisation Rate

We meet our day-to-day operating costs through the proportion of our expenditure which is funded from revenue (cash) each year. The capitalisation rate is the proportion of expenditure that is funded over the long term.

6.50 As a single licence DNO, our operating costs comprise a larger proportion of our total cost base and therefore drive a comparatively lower capitalisation rate than that of multi-licence groups, where operating costs are diluted by higher aggregate capital programmes.

6.51 Our capitalisation rate proposal is based on an analysis of our RIIO-ED1 expenditure plans using the current DPCR5 methodology of 'fast pot' and 'slow pot' calculations. This provides an equivalent capitalisation rate of 72%. This rate is broadly in line with our statutory capitalisation rate, which ranges between 72% and 74%, depending on annual capital programme levels and therefore is consistent with Ofgem's Strategy Decision. Annex 25 provides the support for these calculations.

Financeability

All regulated network companies face an inherent cashflow shortfall because they must meet nominal financing costs but their cash allowances are calculated on a real basis. By compensating investors for the effects of inflation through the indexation of the RAV, and not in-year in the allowed cost of capital, the regulatory mechanism creates a potential short to medium term weaknesses in cash flows. Higher assumed gearing levels exacerbate the problem. This feature of the price control review framework means that we must pay particular attention to ensuring our business plan is financeable and test this with sensitivity analysis.

6.52 Ofgem will start its assessment assuming that our actual Cost of Debt exactly matches the 10-year Trailing Average. Their model uses a rate of 2.72% real for the full price review period which is calculated from a ten-year period ending 2013.

6.53 We do not believe that this is a reasonable assumption. We therefore make two key changes in our assessment. First, we use as our base a forecast for the Trailing Average allowance for RIIO-ED1, we construct this by employing a mechanism developed by Lloyds Bank using forward swap curves. This forecast reflects the inevitable decline in the allowance level in the near term.

6.54 Second, we remove Ofgem's assumption that our Cost of Debt will equal their Trailing Average and replace this with our efficiently incurred actual Cost of Debt, calculated on a real basis which strips out an allowance for inflation from nominal rated debt. We assume that any new debt raised in the period is at the then Trailing Average. This is our base case from which to undertake sensitivity analysis.

6.55 These changes have a material impact on the interest and dividend cover ratios. The key Post Maintenance Interest Cover Ratio (PMICR), a ratio developed by the credit rating agencies to assess financeability without the potentially distorting effects of regulatory depreciation, would weaken to below acceptable levels without the mitigating measures we propose. The full detail of our analysis and conclusions is set out in Annex 25.

Financeability solution

Based on our assessment set out in Annex 25 we have decided to utilise two techniques to strengthen financeability to an acceptable level.

6.56 First, we propose to transition to a 45 year asset life over a single price control in line with the profile shown below. This gives an average asset life of 34 years over the course of RIIO-ED1.

2016	2017	2018	2019	2020	2021	2022	2023
23	26	29	32	35	38	41	45

6.57 Second, we adopt the modified trailing average calculation for the Cost of Debt allowance, as set out in this Chapter 6 and in full detail in Annex 25.

6.58 In the event that Ofgem determines a Cost of Equity of 6.0% then a further financeability step of reducing notional gearing to 62.5% would be necessary.

Finance proposals

The previous version of our business plan clearly set out the basis on which we were able to accept the 10-year simple trailing average calculation for our RIIO-ED1 Cost of Debt Allowance, this being conditional on the Fast Track Reward which we proposed to use to explicitly fill the shortfall in debt funding costs. In this version of our business plan submission, without such a reward being available, we are obliged to propose a package which we consider will ensure the financeability and sustainability of our business.

6.59 Our proposed financing package for the March 2014 business plan assessment is as follows:

Cost of Equity	6.3% Post Tax Real
Cost of Debt	Based on iBoxx 15 to 20-year Trailing Average of BBB only.
Gearing	65%
Regulatory Capitalisation	72%
Regulatory Depreciation	One period transition to 45-years in equal incremental steps
Financeability Measure	Ofgem agreement not to penalise us through the under recovery mechanism for a deliberate under recovery of £11 million of revenues from 2015 to 2016.

Impact on customer prices

RIIO-ED1 is, in many ways, a gateway to an uncertain future. We recognise our role in helping our customers and stakeholders prepare for that future now.

6.60 We believe our plan demonstrates a prudent, flexible and innovative approach to managing much of this uncertainty and enabling a reliable, affordable and sustainable distribution network. We will achieve all of this at prices which will be, on average, 16% lower than our average DPCR5 prices. We are very proud of this achievement. This also represents a further reduction to customer prices from our proposals in July 2013. The additional savings have been achieved by including more ambitious cost efficiencies, some scope reduction in our planned network investment programme, the effects of removing the Fast Track Reward from our plan and applying a lower Cost of Equity allowance.

6.61 This material price reduction can be achieved whilst still including our financeability proposals to ensure the business can continue to deliver a safe, reliable and flexible network into the future.

6.62 Overall, we are confident that our plan offers excellent value for money for our customers and that the benefits in other parts of the plan outweigh the marginally higher costs. Despite the inclusion of the modified trailing average our customers will pay some of the lowest prices for electricity distribution of any in Great Britain during the RIIO-ED1 period. We have compared the prices in our plan with the information available from all the other DNOs in July 2013. This shows that our prices remain the second lowest of any DNO group. This is not a surprise as our base revenue is over £76 million lower than in our previous business plan submission in July 2013. Last year Ofgem assessed the total costs of each DNO's business plan and their analysis showed that our total costs are amongst the lowest of any DNOs in Great Britain. This efficient cost base feeds directly into lower prices for our customers.

6.63 We consulted with our stakeholders on the profile of prices we should adopt when we published our Strategic Direction Statement at the end of February 2013. The feedback we received, particularly from our external stakeholder panel, indicated that we should reduce prices as quickly as possible to a stable and sustainable level and then hold them relatively constant. The price profile below meets this requirement whilst also taking account of other factors. It results from moving revenues to ensure that a minimum and stable PMICR ratio can be achieved in every year of our plan with our actual Cost of Debt and forecast for the likely path of the modified iBoxx index. The graph also reflects the impact of the £5 per domestic customer discount in 2014-15.