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Your ref

Our Ref

SM/sb/28/8/14

Date

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Dear Maxine

## **SP DISTRIBUTION & SP MANWEB UNDERLYING INTEREST EXPENSE**

We write to set out our concerns in relation to the financeability, arising from the RIIO ED-1 draft determination, of the distribution networks SP Distribution plc (SPD) and SP Manweb plc (SPM). In addition, we recommend actions available to Ofgem to ensure these licence holders are able to finance their activities, which are the subject of obligations on them.

This paper includes proposals for Ofgem which we believe are in the interest of customers to ensure the financial resilience of SPD and SPM. My CEO Frank Mitchell has asked that I copy the Ofgem Chairman, David Gray and CEO, Dermot Nolan into this letter. I look forward to receiving your thoughts on the issues raised herein.

### **Our proposals are:**

- Ofgem reassess the translation of the CMA's cost of equity decision which we believe will lead to the setting of an allowance of 6.4% which, critically, will be proportionate to the fast track decision; and
- establish an equitable and theoretically sound methodology for the cost of debt index by expanding the opening for the trombone index to 15 years, so the average maturity of DNO debt of c20 years is reflected in the index as soon as 20 years data becomes available.
- calculate the cost of debt index for SPEN from the BBB iBoxx non-financial sterling corporate bond data, to ensure consistency with the credit rating, which will apply to SPEN in RIIO-ED1, as results from the financial ratios;
- due to methodological inconsistency in Ofgem's approach to RPEs between recent price controls and our standard track assessment we believe in the interest of equality the £170m impact of RPEs on the IQI assessment should be removed;
- the £89m impact of smart meter/smart grid adjustments should also be removed from the IQI assessment, in the interest of equality, as such material policy changes were introduced with no prior consultation; and
- lower our capitalisation rate to c. 75% from the proposed of 80% which will lower forecast debt levels and improve resilience to adverse shocks from external risks such as interest rate volatility;

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These proposals assist Ofgem in meeting their stated intention of:

- setting the cost of capital allowances to be consistent with maintaining comfortable investment grade credit ratings<sup>1</sup> ; and
- fully considering how resilient DNOs' capital structures are to plausible downside scenarios<sup>2</sup>.

Our over-riding objective has been to deliver an efficiently financeable plan that will offer an adequate return to investors at the lowest possible cost to customers. In this context, when we review the draft determination in comparison to the fast track companies, we identify £860m of excess totex allowances and £176m of revenue rewards to act as a financing buffer in comparison to any standard track company. Based on Ofgem's standard track assessment, the return on equity WPD has been allowed, prior to considering incentives other than the IQI outperformance, is c.11%, in real terms.

In comparison, based on our view of expenditure necessary to meet our statutory and licence requirements, we estimate our shareholders have been allowed a return on equity of only 3.75% (chart 1 below).

**In this letter, we set out errors in the standard track assessment and the disproportionate treatment of the standard track DNOs compared to the fast track including:**

- the impact, if Ofgem does not allow our investment programme as detailed in our business plan, of our allowance for RPEs and our smart grid/smart meters investment forecast;
- errors we believe Ofgem has made in calculating an appropriate cost of equity which we believe should be at least 6.4%;
- the flawed assumptions in Ofgem's assessment of the "Halo effect" which DNOs' debt is alleged to enjoy;
- continuing with a debt index which does not represent the average maturity of DNO debt;
- the material difference between the fast track and standard track credit ratios; and
- adjustments required to ensure equal access to finance.

#### *Financeability issue*

Ofgem's view published in the draft determination of our totex proposals assesses our totex as being £60m and £320m too high for SPD and SPM, respectively, compared to the Ofgem view. If the allowances are set based on Ofgem's view we will have a gap between our forecast of expenditure and our allowance, after adjustment for IQI allowance setting of £45m and £240m for SPD and SPM.

We are writing separately regarding our significant concerns on Ofgem's new policy developments on smart grid/smart meter benefits and real price effect forecasts, which drive the gap between our forecast expenditure and the proposed allowance in the draft determination.

This separate letter on new policy developments will set out:

- the procedural concerns of introducing such material policy changes with no prior consultation;

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<sup>1</sup> RIIO-ED1: Draft determinations for the slow-track electricity distribution companies Financial Issues paragraph 2.5

<sup>2</sup> RIIO-ED1: Draft determinations for the slow-track electricity distribution companies Financial Issues paragraph 3.4

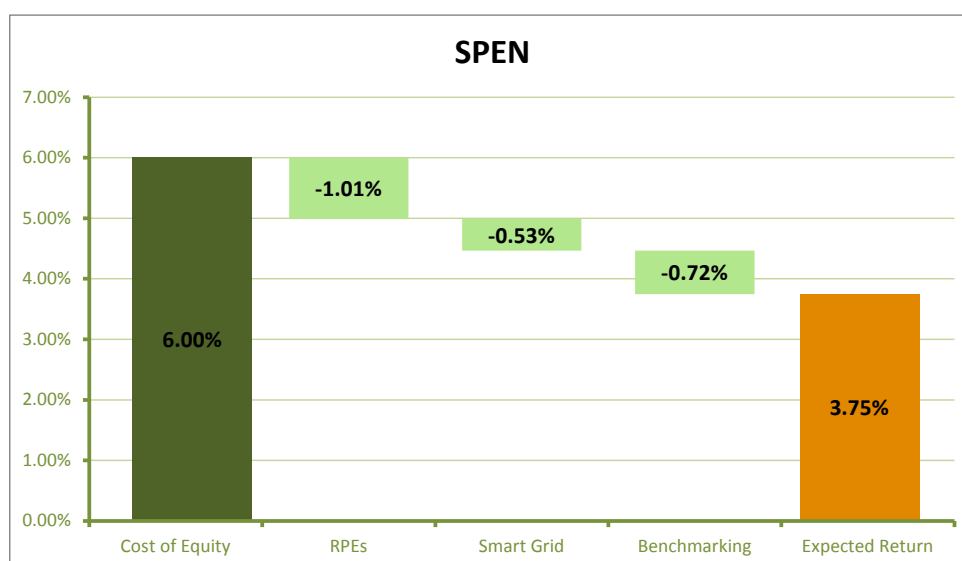
- errors in the application of the new policies; the disproportionate effect on normal track companies compared to WPD, both in terms of assessing efficient costs and application of the IQI incentive;
- special treatment for LPN, presumably arising from Ofgem staff understanding the London network but apparently having no knowledge of the unique SP Manweb network design; and
- issues with the statistical cost models, combined with weaknesses in the engineering assessment, that penalise SP Manweb simply because it is in a different phase of the investment cycle than other DNOs. The clearest and most material example of this relates to SP Manweb's 132kV programme, which the disaggregated modelling proposes a reduction of more than £100m of a £198m programme.

We are strongly of the view that our totex forecast in the standard track submission was as efficient as possible and is all necessary. Prior to the submission, our plans underwent significant due diligence, including extensive peer review and appraisal by highly regarded consulting engineers. For both SPD and SPM combined, the efficiencies we have included in our forecast totex, for the benefit of customers, amounts to c.£1bn over the ED-1 period. We are firmly of the view we will need to spend all the remaining totex forecast that we included in our March 2014 ED-1 plan.

We believe the analysis in this paper shows that SPD and SPM after the inclusion of the totex the business requires to spend in ED-1, to deliver our outputs and, importantly, ensure that we meet our licence and statutory obligations regarding safety and continuity of electricity supply, will lead to the business not being sufficiently securely funded and that the normal operation of RIIO-ED1 incentives will likely lead to financial distress. Under the totex incentive mechanism as proposed for SPEN only 46% of this overspend will be recoverable, over 45 years, with the remaining 54% being treated as a penalty and increasing our cash outflows with no associated income.

The chart below presents the potential return on equity our shareholders will earn in RIIO ED-1 based on the allowances provided in the draft determination and our informed view of the actual totex requirements.

*Chart 1: SPEN's ED-1 return on equity forecast based on our totex forecast*



For example: RoRE under performance for in respect of RPEs equates to  $(\text{RPEs} \times 54\% \text{ totex incentive rate}) / (\text{Opening RAV} \times 35\% \text{ equity element} / 8 \text{ to give average outperformance over 8 years}) = (170 \times 54\%) / (3,253 \times 35\%) / 8 = 1.01\%$ .

Our equity shareholders will be required to fund this expected totex in excess of the allowance. We estimate the cashflow requirement will be c.£160m for our forecast expenditure over allowance (£380m reduced by 46% efficiency incentive rate less amortisation) in RIIO ED-1.

In addition, the mean outcome of our risk analysis, described in more detail below, incorporating our forecast expenditure, indicates that an equity injection of £235m will be required in 2017 for SPM to remain investment grade during ED-1.

An equity injection from shareholders is in addition to the £575m (SPD £260m; SPM £315m) nominal interest payments in excess of the real interest allowance we forecast shareholders are required to finance in ED-1.

The proposal to lower our capitalisation rate is consistent with chapter 9, section 3.g.2 Financeability Summary, of our business plan, where we signalled “additional financial levers need to be considered at final proposals e.g. gearing or the capitalisation rate.” This type of adjustment would be consistent with your stated approach in the draft determination that you can facilitate financeability in present value neutral ways and financial resilience would be improved by reducing RAV growth and, consequently, the amount of equity required to finance it<sup>3</sup>.

#### *Cost of Equity proposed in draft determination*

Our own analysis and that of our advisers, NERA, continues to support a cost of equity of at least 6.4% for RIIO-ED1, which runs to 2023.

The proposed 40bps reduction in the cost of equity, from that recently set for WPD, is disproportionate and neither supported by changes in capital market conditions nor other empirical evidence.

Ofgem’s Draft Determination put severe downward pressure on the allowed cost of equity, which has been reduced to 6.0% post-tax, real. Nevertheless, Ofgem have not provided the necessary supporting analysis and empirical evidence to justify such a marked reduction. Instead, Ofgem seek to rely on a flawed “translation” of the CMA’s (formerly CC’s) cost of equity decision for NIE, which is a price control that ends in 2017, across to the DNOs.

There are a number of errors in Ofgem’s “translation” of the CMA’s cost of equity decision for NIE, including:

- The CMA’s focus on short-run evidence is less relevant to the RIIO-ED1 price control period, which runs from 2015 to 2023, whereas the NIE price control period started in 2013 and ends in 2017. Ofgem should base its estimate for the total market return for RIIO-ED1 on long-run averages, especially as there are no reliable financial and economic forecasts out to 2023.
- Ofgem assumes a debt beta of 0.1 for the DNOs, which is:
  - higher than the CMA’s assumption of 0.05 debt beta for NIE
  - inconsistent with the CMA’s de-gearing of the empirical equity beta estimates, which used a debt beta of 0.05. It is, therefore, appropriate to re-gear to 65% gearing, using the same value of the debt beta of 0.05
  - inconsistent with Ofwat’s assumption of a zero debt bet beta for the water companies
  - inconsistent with Ofgem’s assumption of a higher credit rating (A/BBB) for DNOs than the CMA assumed for NIE (BBB+)

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<sup>3</sup> RIIO-ED1: Draft determinations for the slow-track electricity distribution companies Financial Issues paragraph 3.19 & 3.33

- Ofgem uses an asset beta of 0.38 for the DNOs, which is below the CMA's assumption of 0.4 for NIE. However, the RIIO framework is less proven than RPI-X and the longer duration and untested operation of the mid-term review increases uncertainty. In our view, 0.4 would be an equally applicable beta to use in the "translation" of the CMA's calculation.

It seems to us that Ofgem's interpretation of the CMA's report does not bear close scrutiny, especially in regard to Ofgem's assumptions for the asset beta and debt beta, and the ignoring of the difference in the length and timing of price control periods. We set out below the consequences of the adjustments, which we think should be made to the "translation" of the CMA's calculation of the cost of equity for NIE.

*Comparison of Ofgem's draft determination to CMA's cost of equity for NIE*

	<b>Lower</b>	<b>Upper</b>	<b>Mid</b>
<b>Gearing</b>	65%	65%	65%
<b>Risk free rate</b>	1.50%	1.50%	1.50%
<b>Equity risk premium</b>	5.00%	5.00%	5.00%
<b>Asset beta</b>	0.38	0.40	0.39
<b>Debt beta</b>	0.1	0.05	0.075
<b>Equity beta</b>	0.9	1.05	0.98
<b>Cost of Equity</b>	6.00%	6.75%	<b>6.38%</b>

The conclusion that we draw from this table is that one would have to take a distinctly slanted reading of the CMA's report to conclude that Ofgem is not allowing the DNO a less generous cost of equity than the CMA allowed for NIE. An objective interpretation of the CMA's findings is that the CMA's parameters point Ofgem towards a higher cost of equity than it is allowing in its draft determination. We observe that our Business Plan submission is based on a cost of equity of 6.4% (real, post-tax), which falls within the middle of the range in the above table.

With other DNOs, we have commissioned a report from NERA which includes evidence on the points above. We will submit this report to you and wish to propose a meeting with Ofgem and NERA to discuss these issues in more detail.

Moreover, there have been a number of changes to Ofgem's position since the publication of the RIIO-ED1 Strategy Decision in March 2013, which has further increased uncertainty surrounding the operation of the RIIO framework. In particular, we are unable to reconcile Ofgem's claim that there is headroom in the 6.0% cost of equity used in the Draft Determination, with the range of 6.0% to 7.2%, which Ofgem set in March 2013.

*Split cost of equity in RIIO ED-1*

We see a number of problems with Ofgem's proposal to set different values for the cost of equity across DNOs, including:

- The cost of equity should reflect the opportunity cost of capital available from investing in companies of equivalent risk. Any adjustments to the cost of equity, even those which could be deemed to be reward or penalties, will lead to inefficient investment decisions.
- Adjusting the allowed cost of equity, outside of the CAPM framework, is inconsistent with best practice as applied previously by Ofgem, other UK regulators and the Competition Commission.
- Within the CAPM framework, which is Ofgem's preferred framework for RIIO, we see no justification for a higher or lower cost of equity for any DNO. All the DNOs in Great Britain operate in the same jurisdiction with the same structure for their price controls and so face

more or less the same systematic risks. Whether a company is fast-tracked or not has no bearing on the cost of equity it faces when raising capital.

- Ofgem's proposed use of the allowed cost of equity to differentiate allowed revenues, according to its assessment of companies' relative efficiency, introduces significant subjectivity, and thus regulatory risk, into the determination of the allowed WACC. Ultimately, increased subjectivity and risk will raise financing costs and/or deter investment from the sector, thus raising costs to consumers.

Moreover, Ofgem's stance is inconsistent with the RIIO process and places too much reliance on the fast-track benchmarking, which has been criticised by a number of stakeholders, and

- By proposing to provide a higher cost of equity to the fast-tracked company, Ofgem has altered the RIIO-ED1 process, without undertaking the necessary consultation.
- The use of Ofgem's cost assessment results to set companies' allowed cost of equity places significant reliance on unreliable benchmarking methods. As set out in a previously submitted NERA report, Ofgem's fast track cost assessment entailed numerous subjective and unjustified assumptions, was not statistically robust, and was probably biased by the presence of omitted variables from benchmarking regressions. Hence, rather than awarding a higher allowed cost of equity to those companies that "make especially tough cost efficiency assumptions", there is a risk that Ofgem is penalising the companies that appear to have high costs for reasons other than "inefficiency", such as unobserved heterogeneity in the statistical models, differences in cost allocation, or data error.
- Ofgem's proposal to allow a higher cost of equity for those companies that "make especially tough efficiency assumptions" is effectively penalising some companies twice for appearing to have relatively high costs in Ofgem's benchmarking models. The purpose of the standard track cost assessment is to set allowances (including "tough efficiency assumptions") based on Ofgem's view of "efficient costs" for each DNO. It is therefore unnecessary to claw-back perceived inefficiency from those companies that are assessed as having relatively high costs, as these companies will already receive totex allowances below their business plan forecasts.

### *Real price effects*

Ofgem has changed its methodological approach to establishing real price effects (RPEs) for the standard track assessment. First Economics has calculated if Ofgem adopted its previous view of long term / steady state RPEs its assessment would be close to our standard track submission. The approach we adopted for our submission followed the approach adopted by the CMA for NIEs decision. This approach calculated RPEs to be c.4.9% over RIIO ED-1, similar to all other DNOs, however significantly below the c.7% RPE level approved for the fast track companies.

Ofgem's new methodology included observed data from a period of unprecedented recession that it previously noted in RIIO T-1 it should not do so.

In its RIIO-T1 initial proposals, Ofgem stated:

"In deriving RPE assumptions for Initial Proposals our general approach for establishing a forecast of input prices is to draw on the long-term real trend of relevant indices. We have calculated the long-term trend based on data for c. 20 years. We have calculated the longterm trend based on data up to and including 2009/10. We excluded the last two years of data from the long-term average because the impact of the global recession over these years could result in an historical trend which understates the expected growth over the longer-term."

Ofgem's RIIO-ED1 long-term steady-state averages include data from 2010/11 to 2013/14. Ofgem is therefore doing exactly what it previously noted that it should not do and it is

benchmarking future RPEs to long-term averages which include observed data from a period of unprecedented recession.

#### *Inclusion of RPEs and SMART expenditure deductions in IQI assessment*

Due to methodological inconsistency in Ofgem's approach to RPEs between recent price controls and our standard track assessment, we believe in the interest of equality the £170m impact of RPEs on the IQI assessment should be removed. In addition, the £89m impact of smart meter/smart grid adjustments should also be removed in the interest of equality, due to such material policy changes being introduced with no prior consultation.

After applying a similar adjustment to all DNOs in the standard track assessment we calculate this would lead to a c.£35m additional income under the IQI mechanism in comparison to a £10m penalty in the draft determination.

#### *Financial resilience to expenditure in line with DNOs' Totex forecasts*

Consistent with our business plan we test the robustness of our financial plan utilising a risk model we have constructed with the assistance of NERA. Only external risks which are not directly within the control of the DNO are incorporated into the model. We exclude risk arising from performance under regulatory incentives, except for the IQI incentive and Totex incentive mechanism, to account for the additional penalty applying if we do have to spend in excess of the allowance in order to deliver our outputs. We include any proposed uncertainty mechanisms in our modelling. We provided a copy of this risk model to Ofgem with our business plan submission and included a paper describing this model in detail (link below).

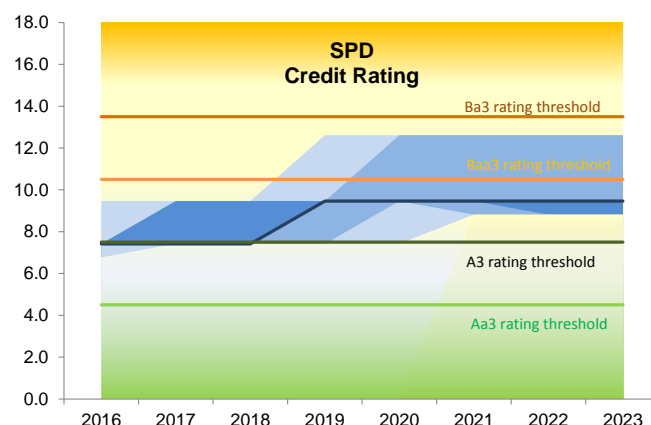
([http://www.spenergynetworks.co.uk/userfiles/file/201403\\_NERA\\_RiskModellingED1.pdf](http://www.spenergynetworks.co.uk/userfiles/file/201403_NERA_RiskModellingED1.pdf))

The cost of debt exposure is forecast using an approach developed by NERA, which is a simplified version of the widely used Heath-Jarrow-Morton (HJM) framework for modelling interest rate uncertainty. In this approach the cost of debt is determined by the interest rate of embedded and new debt and the amounts of debt outstanding. The model accounts for uncertainty around both the interest rate and the amount of debt issued over ED1.

The distribution of credit rating outcomes generated by simulation is shown as a fan chart in Figures 1 to 4 below for SP Distribution and SP Manweb.

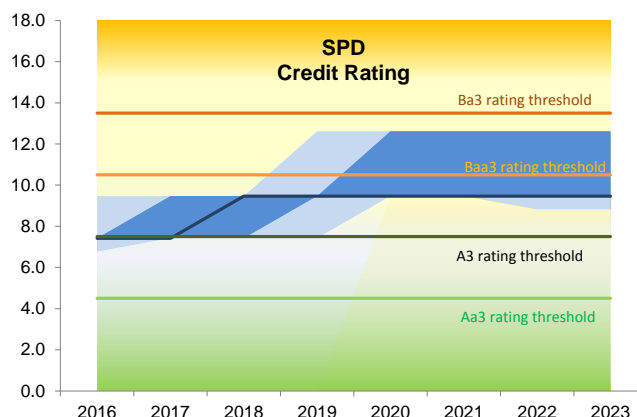
The central path (the median) is shown as a dark line (using Moody's methodology).

Figure 1: SPD's expenditure in line with draft determination allowance



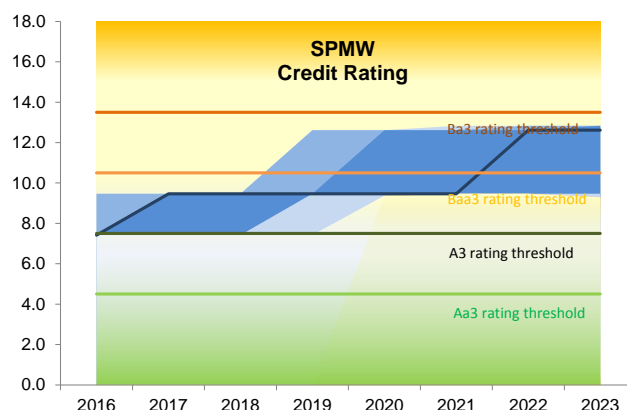
SPD commences at the A3 / Baa1 boundary with the mean position declining from 2019 onwards to the Baa2/Baa3 border. At the median position we are therefore forecasting an investment grade credit rating will be maintained but the distribution of the graph shows there is a risk at the 88th percentile that a combination of adverse outcomes could lead to a credit rating inconsistent with the allowed cost of debt.

Figure 2: SPD's expenditure in line with DNO forecast



Following inclusion of expenditure at the DNO's forecast level SPD remains in investment grade, with the mean position dropping to Baa2/Baa3 border a year earlier in 2018. The risk of a sub investment grade rating increases to the 75th percentile.

Figure 3: SPM's expenditure in line with draft determination allowance

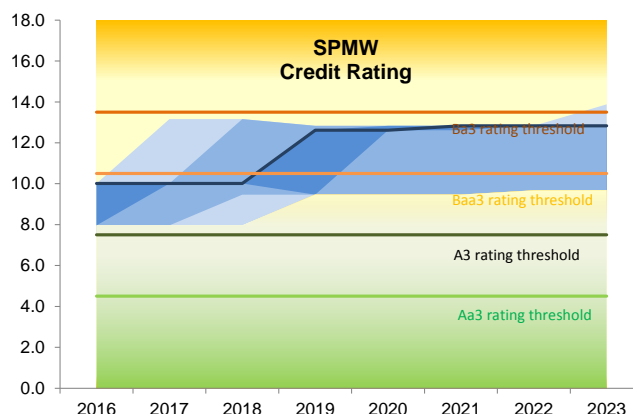


The central path for SP Manweb (the median) is shown as a dark line within the Baa band until 2022 before dropping materially below investment grade into the Ba band for the remainder of the period. The credit ratios for SPM are weaker than SPD before any risk is modelled. The distribution of the graph above shows that the likelihood of a credit rating within investment grade progressively deteriorates from median in 2021 to only at the 25th percentile for the remainder of ED-1.

This would trigger the need for a £45m equity injection in 2020 to ensure SPM maintains an investment grade rating. Therefore, based on the draft determination view of totex and the normal operation of the ED-1 incentives, our current base expectation for ED-1 is an equity injection will be required from our shareholders to ensure an investment grade rating is maintained. The price control cashflows, as currently calibrated, considering our modelling of actual debt, are not sufficient to meet the licence requirement of maintaining an investment grade credit rating. Shareholders will be required to inject equity.



Figure 4: SPM's expenditure in line with DNO forecast



With expenditure in line with SPM's forecast it is expected at the mean its credit rating will drop below investment grade by 2018. Only at the 13<sup>th</sup> percentile does the risk model forecast SPM will retain its investment grade rating.

This would trigger the need for a £235m equity injection in 2017 to ensure SPM maintains an investment grade rating. Therefore, based on our view of the totex required to meet our commitments, and the normal operation of the ED-1 incentives, our current base expectation for ED-1 is an equity injection will be required from our shareholders to ensure an investment grade rating is maintained.

Under both outcomes detailed above, equity holders will be required to inject equity. This demonstrates the need for Ofgem to consider the proposed adjustments to the draft determination detailed in the *Financeability issue* section of this paper to ensure the financial resilience of SPD and SPM.

A CoE assumption of at least 6.4%, consistent with the fast track DNO, will be necessary to compensate equity holders of both SPD and SPM for bearing this higher level of risk. In addition, the CoE assumption needs to be maintained at this level to attract the additional equity to maintain an investment grade credit rating.

#### *Shortfall in the funding of nominal interest payments*

The proposed adjustments to the draft determination included in the *Financeability issue* section of this paper are also essential, as shareholders will have to finance the shortfall in the funding of nominal interest payments, which arise during RIIO-ED1 from the mis-match with the allowed real return, by reinvesting funds and accepting lower dividends. This results in a delayed return to shareholders, which exposes them to greater political risk.

Previous analyses by First Economics<sup>4</sup> and Moody's<sup>5</sup> have highlighted the mismatch between the allowed cost of debt, which is set in real terms, and the nominal interest rate payments which arise from the majority of DNO debt. First Economics conclude that financing difficulties arise when regulators fund only part of companies' nominal interest payments in price controls.

Moody's warns that persistent low real interest rates could increase credit risk for UK regulated utilities. The combination of low real interest rates and the UK regulatory framework has a

<sup>4</sup> First Economics (2010), "Financeability: An Update", April, and (2013) "Equity Financeability: A report prepared for Water UK", March

<sup>5</sup> Moody's (2013) "Low Real Interest Rates Reveal Risks of Funding Choices of UK Regulated Utilities", Special Comment, October 9, and (2013) "UK Regulated Utilities: Cash Flow Vulnerable to Low Real Interest Rates", Special Comment, October 9

potentially negative effect on companies' liquidity. This risk arises because regulated firms earn an allowed rate of return calculated in real prices but fund themselves predominantly through vanilla fixed-rate bonds that include an inflation component leading to a mis-match.

This mis-match leads to a substantial and growing shortfall in the cost of debt allowance relative to the nominal interest rate payments which will have to be made to lenders by SPM and SPD. The annual shortfall grows year by year and the cumulative shortfall in the funding of nominal interest payments, at the median, reaches £315m for SPM and £260m for SPD, by the end of RIIO-ED1.

Figure: 5 SPD's ED-1 forecast nominal interest payments in comparison to interest allowance.

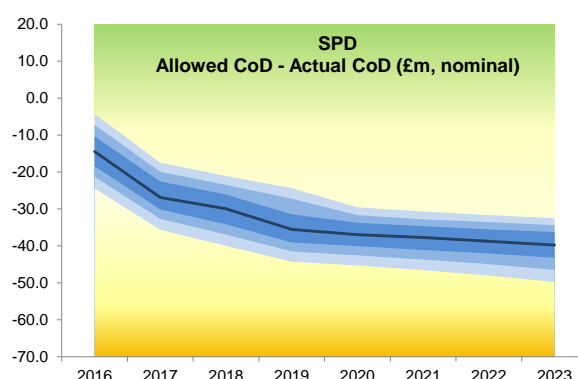


Figure 5 above presents SPD's £260m short fall we have modelled in the real interest allowance for the ED-1 period in comparison to the actual nominal forecast debt interest forecast.

Figure: 6 SPM's ED-1 forecast nominal interest payments in comparison to interest allowance

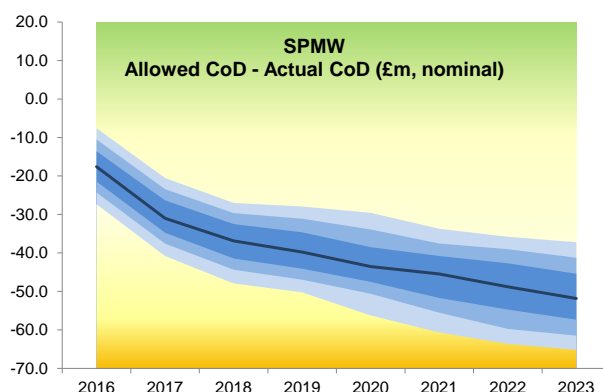


Figure 6 above presents SPM's £315m short fall in the interest allowance for the ED-1 period in comparison to the actual nominal debt interest forecast.

#### *'Trombone' cost of debt proposal*

We have consistently made the argument that the length of the cost of debt index should be extended. We are pleased the draft determination recognises the need for the index to extend to 20 years, consistent with the average maturity of DNO debt. We do not believe it is consistent with Ofgem's responsibilities to propose an index which fails to recover DNO's embedded debt

costs<sup>6</sup>. We address Ofgem's justification for the proposed debt index underfunding of the DNOs based on the 'Halo effect' and head room in the cost of equity, in the '*Halo effect*' and *Cost of Equity* sections of this paper.

However, we are of the view the most conceptually sound approach would be to extend the index to 20 years as soon as possible so it matches the tenor of DNO debt. This would mean commencing the 'trombone' index at 15 years initially and extending it to 20 years as data is available over ED-1. This would establish an equitable and theoretically sound methodology for the application of Ofgem's debt index policy for RIIO ED-1 and future price controls. Essentially, this would also be in the interests of customers, as it would support the raising of efficient future debt on the basis the credit agencies place a high weighting on qualitative factors, including stability of regulatory regime.

Any outperformance by DNOs of an index as proposed above would be entirely defensible, as it only rewards / encourages efficient behaviour, which has seen DNOs raise debt efficiently at favourable times.

Through the ENA, the DNOs have commissioned NERA to prepare a comprehensive assessment of the cost of debt evidence included in the draft determination and appraise the 'Halo effect' that Ofgem raises. We will be seeking a meeting with Ofgem to present and discuss this analysis.

#### *Halo effect*

As mentioned above, through the ENA we have commissioned NERA to prepare an appraisal of the suggestion in the draft determination that DNO debt enjoys a 'Halo effect'. We will provide empirical evidence, for you to review, that demonstrates no debt Halo exists. We also find the assertion a Halo effect exists, and especially would continue to exist, difficult to reconcile with your own assessment that the DNOs risk a one notch downgrade in their credit rating, which will increase borrowing costs.

Below, by way of illustration, we have shown that companies cannot always issue debt consistently below the i-Boxx index, as has been assumed. We have provided details of the most recent bond issues from the two DNO's within the ScottishPower group to the external capital markets compared against the I-Boxx index at issuance.

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<sup>6</sup> RIIO-ED1: Draft determinations for the slow-track electricity distribution companies Financial Issues paragraph 3.46

Table: 1 recent debt issuances

	SP Distribution		SP Manweb	
	Date of pricing 8 July 2011	Date of settlement 18 July 2011	Date of Pricing 5 Sept 2012	Date of settlement 20 Sept 2012
Coupon	5.875%	5.875%	4.875%	4.875%
All-in (Nom)	5.999%	5.999%	5.002%*	5.002%*
i-Boxx index	5.507%	5.465%	4.343%	4.393%
Under recovery (Nominal)	49.2bp	53.4bp	65.9bp	60.9bp
All-in (Real)	2.701%	2.685%	2.509%	2.500%
i-Boxx Real	2.225%	2.168%	1.866%	1.905%
Under recovery (Real)	47.6bp	51.7bp	64.3bp	59.5bp

\* Excludes the direct costs of the rating agencies of £220,000

We would also like to reiterate that the i-Boxx index is a secondary market yield not primary i.e. it ignores new issuance premiums required/demanded for new issuances in the primary markets.

#### *Other risks linked to cost of debt*

Oxera have identified a number of ways in which a DNO remains exposed to the risk that the cost of debt index does not match that incurred by the DNO.

These include:

- Frequency of debt issuance
- Re-financing profile
- RAV growth
- Intra-year volatility of yields
- Time varying inflation risk premium

Similarly, First Economics have advised:

- For DNOs, the cost of debt index is likely to over-react to changes in market interest rates<sup>7</sup>
- “Break-even inflation” is not a sufficiently robust or accurate measure to calculate the real cost of debt<sup>8</sup>
- DNOs’ recent experience of debt issuances calls into question the extent to which ‘headroom’ will exist in future to pay for items that are missing from Ofgem’s cost of debt formula<sup>9</sup>

<sup>7</sup> First Economics (2012), “Ofgem’s Cost of Debt Index and the Cost of Equity” 8th June  
[http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrl/rrio-ed1/consultations/Documents1/ENA\\_ED1StratResponse\\_First%20Economics\\_Paper3\\_Debtindex.pdf](http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrl/rrio-ed1/consultations/Documents1/ENA_ED1StratResponse_First%20Economics_Paper3_Debtindex.pdf)

<sup>8</sup> First Economics (2012). “Indexation of the Cost of Debt and Inflation”, 8th June  
[http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrl/rrio-ed1/consultations/Documents1/ENA\\_ED1StratResponse\\_First%20Economics\\_Paper2\\_Indexation.pdf](http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrl/rrio-ed1/consultations/Documents1/ENA_ED1StratResponse_First%20Economics_Paper2_Indexation.pdf)

<sup>9</sup> First Economics (2012), “Benchmark vs Actual Cost of Debt in 2011”, 8th June  
[http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrl/rrio-ed1/consultations/Documents1/ENA\\_ED1StratResponse\\_First%20Economics\\_Paper1\\_Benchmark.pdf](http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrl/rrio-ed1/consultations/Documents1/ENA_ED1StratResponse_First%20Economics_Paper1_Benchmark.pdf)

### *Forecast notional economic model credit rating*

Using Ofgem's notional economic model we have modelled the impact on financeability of our expected requirement to spend in line with our forecast and consequently overspend our draft determination allowance. In the draft determination in paragraph 3.16, Ofgem acknowledges the DNO will likely experience a one notch down grade principally through worse PMICR ratios. Ofgem's modelling of the PMICR is before the DNOs actual totex expenditure forecast flows through the model which will further impair this ratio.

We note Ofgem states all DNOs are currently rated no worse than BBB+ (Standard & Poor's and Fitch)<sup>10</sup>. As SPD and SPM are rated at BBB we believe they are materially more exposed to downwards pressure on their PMICR ratios than other DNOs.

In addition, to ensure equal access to finance and proportionality in Ofgem's assessment we compare the proposed credit ratios of SPD and SPM to those of WPD.

SPD and SPM are competing in financial markets with other electricity and gas network companies. In order to be able to compete equally in the financial markets, the implied credit ratings for SPD and SPM must be no worse than those applying to the benchmark WPD ED1 fast track companies, after removing any specific fast track reward.

We believe for a price control to be in the long run interest of customers and shareholders it should ensure that the expected overall credit rating ('overall' meaning including non-financial ratio components) for a notional average distribution business will be solidly within the A to Baa (Moody's) range of credit rating, with only a small probability that under realistic adverse combination of external outcomes this rating might drop to a level inconsistent with the allowed Cost of Debt. To be financeable the company needs to be able to raise the required financing in the financial markets in order to deliver its Licence commitments and expected expenditure.

To perform this assessment we have incorporated into Ofgem's economic model a simulation of the individual and aggregate credit metrics based on Moody's rating methodology<sup>11</sup> for regulated electric and gas networks. The results from this model, presented below show our ratios become severely stretched. In particular the PMICR ratio further declines when our view of totex is flowed through the financial models and the efficiency incentive rate is applied to the expenditure in excess of allowances.

The reward for being a fast tracked company is 2.5% of totex. There should be no other differential between fast track and slow track DNOs. We have benchmarked our two network companies against the average ratios for the four WPD companies to reflect the fact that the owner of WPD is receiving the performance of the 4 companies, combined not the individual companies. We have adjusted the modelling to ensure that the companies are comparable e.g. by removing the 2.5% of totex fast track reward. We found that Debt/RAV (Baa), FFO/Net Debt (A) and RCF/Capex (Ba) were consistent for both WPD and SPEN. However, consistent with Ofgem's analysis, we found that PMICR for SPEN was poor. So, we have focused our analysis and comparison on PMICR.

As expected, after our view of totex is flowed through the model, the PMICR declines further due to the impact of the totex incentive mechanism. The revised PMICR of 1.36 and 1.24 for SPD and SPM respectively, detailed further below, results in revised Moody's rating methodology notional credit rating of Baa1 for both SPD and SPM compared with A3 and Baa1 for SPD and SPM, respectively, based on the draft determination.

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<sup>10</sup> RIIO-ED1: Draft determinations for the slow-track electricity distribution companies Financial Issues paragraph 3.16

<sup>11</sup> Moody's Investors Service (2009), "Regulated Electric and Gas Networks", Rating Methodology, August

The comparable PMICR of 1.30 for SPEN and 1.42 for WPD results in the following overall Moody's ratings:

Moody's comparable ratings	SPEN average	WPD average
PMICR	Ba	Baa1
Overall Moody's rating	Baa1	A3

As referred above we have added a simulation of Moody's rating methodology into Ofgem's economic model. As presented above this would outturn at an overall Baa1 forecast rating, however, the PMICR ratio is in the Ba range. We have a legitimate concern, based on experience, that the rating agencies will seek to lower the rating to Baa2 due to the persistent weakness in our forecast PMICR ratio.

The following table shows the various adjustments required to ensure comparability. For the purposes of this analysis we have used the average PMICR ratio over the eight years of ED1, as this represents the performance over the entire period (as opposed to Moody's approach of using the average of the worst 3 consecutive years). Incidentally, the 3 year average approach results in the same PMICR rating at the fully comparable stage. We believe this is the most appropriate basis, as the credit agencies are interested in the underlying performance and will remove one off adjustments that impair comparability. In the draft determination Ofgem acknowledge the credit rating agency practise of excluding between year adjustments<sup>12</sup>.

*Table: 2 Comparison of PMICR to fast track companies*

PMICR rating	SPD	SPM	SPEN average	WPD average
Draft determination (Profiled)	1.40	1.35	1.38	
Fast track (Profiled)				1.47
Remove 2.5% of totex reward (1)				1.37
Adjust to unprofiled (2)	1.40	1.35	1.38	1.36
Remove DPCR5 adjustments (3)	1.35	1.32	1.33	
Overspend Totex (excluding RPEs) (4)	1.36	1.24	1.30	
Include RPE Outperformance (5)				1.42
PMICR comparable variance WPD v SPEN				+0.12

Please refer to appendix 1 for the notes to each adjustment in table 2 above.

We propose this disparity based on the draft determination can be ameliorated through the adjustments we set out in the *financeability issue* section of this paper.

Nevertheless, it is essential that the cost of debt index is calculated from the iBoxx benchmark indices that are consistent with the credit rating that results from each DNO's financial ratios. As SPEN's overall credit rating is projected to be no higher than Baa1, the cost of debt index for SPEN should be calculated from the BBB iBoxx non-financial sterling corporate bond data, to ensure consistency with that credit rating,

**In summary the following actions proposed throughout this paper will address our concerns on equal access to financial markets and the significant financeability issues for SPD and SPM:**

- reappraisal of expenditure allowances more in line with the expected expenditure levels proposed in our March 2015 Business Plan;

<sup>12</sup> RIIO-ED1: Draft determinations for the slow-track electricity distribution companies Financial Issues paragraph 3.42

- reassess the RPE allowance in line with long term trends, consistent with previous Ofgem methodology, which will provide an allowance in line with the CMA methodology we adopted;
- reassess the translation of the CMA's cost of equity decision which we believe will lead to the setting of an allowance of 6.4% which, critically, will be proportionate to the fast track decision;
- establish an equitable and theoretically sound methodology for the index by expanding the opening for the trombone index to 15 years, so the average maturity of DNO debt of c20 years is reflected in the index as soon as 20 years data becomes available;
- calculate the cost of debt index for SPEN from the BBB iBoxx non-financial sterling corporate bond data, to ensure consistency with the credit rating, which will apply to SPEN in RIIO-ED1, as results from the financial ratios
- in the interests of fairness and equality the £170m RPE and the £89m SMART adjustments should be removed from the IQI assessment. These adjustments driven from changes in methodology and policy, respectively, unjustly impair our outcome from a core incentive; and
- lower our capitalisation rate to 75% from the proposed of 80% which will lower our forecast debt levels and improve SPD and SPM's resilience to adverse shocks from external risks.

We believe the analysis in this paper shows that SPD and SPM, after the inclusion of the totex the business requires to spend in ED-1, to deliver our outputs and, importantly, ensure that we meet our statutory licence obligations regarding safety and continuity of electricity supply, will lead to the business not being sufficiently securely funded and that the normal operation of RIIO-ED1 incentives will likely lead to financial distress.

If you require further information or have any questions please contact Andrew Stanger (0141 614 1972).

Yours sincerely



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## Appendix 1:

### Notes to table 2 above:

1. Remove 2.5% of totex reward – 2.5% IQI removed as this is the only differential between fast track and slow track companies
2. Adjust to unprofiled – the adjustment to unprofiled revenues is required to demonstrate revenues (and hence ratios) based on the underlying cash flows which are distorted by profiling
3. Remove DPCR5 adjustments – credit rating agencies are interested in the underlying performance of ED1 in isolation which is distorted by the inclusion of revenue cash flows that should all have been funded prior to the end of DPCR5: the £5 rebate (2014/15 reduction in household energy bills); DPCR4 losses close out settlements; and, rising mains and laterals DPCR5 reopener
4. Overspend Totex - (excluding RPEs)– we believe we need to spend our forecast March 2015 business plan. Any totex not allowed ex ante as part of final proposals which is actually spent will be an overspend and reflect the 54% totex incentive rate
5. Include RPE Outperformance – this assumes that the draft determination calculations of RPEs are correct; this means that the WPD fast track companies have received an additional allowance compared with the slow track companies in respect of their RPE allowance reflecting their 70% totex incentive rate, resulting in an additional RoRE outperformance.



Appendix 2:

Detail analysis of main credit ratios

SPD	SP Distribution Draft Determination (July 2014)				SP Distribution Adjusted for DNO Totex forecast		
	A	Baa	Ba		A	Baa	Ba
<b>Factor 4: Key Credit Metrics (40%)</b>							
a) Adjusted Interest Cover – 15%		1.40					1.34
b) Net Debt / RAV– 15%		62.6%				63.3%	
c) FFO / Net Debt – 5%	15.7%				15.1%		
d) RCF / CAPEX Avg) – 5%			0.88				0.85
<b>Rating</b> Indicated Rating from Grid factors 1-4	A3					Baa1	
Credit rating score	6.65					7.62	

SPM	SP Manweb Draft Determination (July 2014)				SP Manweb Adjusted for DNO Totex forecast		
	A	Baa	Ba		A	Baa	Ba
<b>Factor 4: Key Credit Metrics (40%)</b>							
a) Adjusted Interest Cover – 15%			1.35				1.28
b) Net Debt / RAV– 15%		65.5%				67.5%	
c) FFO / Net Debt – 5%	13.3%				12.2%		
d) RCF / CAPEX Avg) – 5%			0.74				0.65
<b>Rating</b> Indicated Rating from Grid factors 1-4		Baa1				Baa1	
Credit rating score		7.62				7.62	

Including the IQI reward the average PMICR score for the WPD DNOs is 1.47 with a credit score of 6.65 leading to a strong A3 assessment. This compares with 1.36 as presented below after the removal of the 2.5% IQI.

8 Year Average	Adjusted Interest Cover Ratio		Net Debt / RAV		FFO / Net Debt		RCF / Capex	
	Baa	Ba	Baa	Ba	A	Baa	Baa	Ba
SPD		1.35	62.8%		15.4%			0.87
SPM		1.32	65.3%		13.2%			0.74
<b>SPEN</b>		<b>1.33</b>	<b>64.1%</b>		<b>14.2%</b>			<b>0.80</b>
WMID		1.32	65.8%		13.3%			0.68
EMID		1.35	65.8%		13.3%			0.66
SWALES	1.41		66.1%		13.5%			0.60
SWEST	1.42		66.2%		13.3%			0.58
<b>WPD</b>		<b>1.36</b>	<b>65.9%</b>		<b>13.3%</b>			<b>0.63</b>

After adjusting for Ofgem revised view on RPEs we have revised the credit ratio analysis presented below to show the impact on the ratios in comparison to WPD. This assumes none of the DNOs experience RPEs across the 8 year period in line with Ofgem assessment. This presents a material gap mainly in PMICR which creates a significant difference in credit scores and undermines proportionality of price control settlements for the RIIO ED-1 DNOs.

8 Year Average	Adjusted Interest Cover Ratio		Net Debt / RAV		FFO / Net Debt		RCF / Capex	
	Baa	Ba	Baa	Ba	A	Baa	Baa	Ba
SPD		1.36	62.5%		15.5%			0.88
SPM		1.24	67.6%		12.3%			0.66
<b>SPEN</b>		<b>1.30</b>	<b>65.2%</b>		<b>13.7%</b>			<b>0.76</b>
WMID		1.37	65.3%		13.7%			0.74
EMID		1.40	65.3%		13.7%			0.72
SWALES	1.46		65.7%		13.9%			0.65
SWEST	1.48		65.7%		13.7%			0.63
<b>WPD</b>	<b>1.42</b>		<b>65.5%</b>		<b>13.7%</b>			<b>0.69</b>