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Dear Ian

Ofgem's financeability assessment for RIIO-ED1 in the context of low observed Post Maintenance Interest Cover Ratios

This letter has been prepared solely for Ofgem ("you") and provides, on the basis of your calculations for a sample regulated electricity distribution network operator ("DNO"), some context to Ofgem's financeability testing for the RIIO-ED1 price control determination. You have asked PwC ("we" or "us") to comment on why Ofgem may be observing low post maintenance interest cover ratios ("PMICRs")[1], likely implications of low PMICRs and potential options for how regulators and DNOs might mitigate the impact of low PMICRs.

Financeability testing

Ofgem has a duty to have regard to the need to secure that DNOs are able to finance their licenced activities[2]. Similarly, DNOs have a licence condition which requires them to maintain an investment grade credit rating.[3]

Ofgem has traditionally satisfied itself that DNOs can finance their activities by: (i) the allowance of an appropriate return[4] on the regulatory value of assets deployed by the business; and (ii) reviewing the financeability of the regulated business in relation to target credit ratios, similar to those used by credit rating agencies[5]. Such ratios include, inter alia, the following:

- Funds from operations ("FFO") interest coverage;
- PMICR;
- FFO to net debt;

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[1] PMICR is defined by Ofgem as "a financial ratio used by rating agencies when determining credit ratings. It measures the amount of cash a company generates from the revenues it brings in, excluding costs associated with long-term investment (capex) relative to the interest paid on the company's debt" (*Ofgem*, "Glossary of terms: RIIO-T1 and GD1 review"). Different ratings agencies name their version of this ratio differently. Moody's Investors Services Inc. refers to it as the adjusted interest cover ratio ("AICR"). Fitch Ratings Inc. refers to it as the PMICR. In this letter, we use the term PMICR.

[2] *Electricity Act* (1998), Part 1, Section 3A,Paragraph 2(b), "the need to secure that licence holders are able to finance the activities which are the subject of obligations imposed by or under this Part or the Utilities Act 2000."

[3] Standard conditions of the Electricity Distribution Licence – 22 April 2014, Condition 40.

[4] This letter does not address Ofgem's calculation of an appropriate return.

[5] The UK regulators' general approach to assessing financeability testing is set out in a note by the Joint Regulators Group (JRG) *"Cost of Capital and Financeability"*, March 2013.

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- Retained cash flow ("RCF") to net debt;
- RCF to capital expenditure; and
- Net debt to regulatory asset value ("RAV").

Over time, with increasing transparency from credit rating agencies, Ofgem has been better able to simulate the analytical aspects of rating agency calculations. Of course, any assessment by Ofgem is merely indicative of a rating outcome, as rating agencies consider a range of qualitative and quantitative evidence in their rating assessments.

Ofgem has further refined its financeability testing by the use of risk analysis, particularly around the return on regulated equity ("RORE"), but also by considering how credit metrics might be impacted in downside scenarios.

We observe that efficient DNOs continue to have access to investment.

Low PMICR ratios

Ofgem's PMICR calculation deducts regulatory depreciation from the operating cash flow used in the interest cover calculation. Other regulators use slightly different PMICR ratio calculations[6], but all are intended to measure whether a company has sufficient resources to service its interest liabilities after deducting an allowance for the maintenance of its regulated assets.

UK regulators have historically set price determinations with PMICR ratios around or above 1.4x[7], but more recently both outturn and regulators' targeted PMICR ratios have fallen. For example, Ofgem calculated PMICR ratios of 1.3x for some companies in some periods in its RIIO-GD1 determination[8]. The Competition Commission ("CC") also reviewed the PMICR of Northern Ireland Electricity and calculated a ratio of 1.2x over the regulatory control period, 0.2x below the CC's generic stated PMICR target of 1.4x.[9]

Lower PMICR ratios relative to the past have been caused in part by a combination of macroeconomic conditions including lower real interest rates and a recent relatively high rate of inflation, particularly the RPI measure of inflation which Ofgem uses throughout the price control[10]. These effects have been well documented by a range of commentators, including rating agencies and the CC[11].

[6] For instance, the CAA calculates its PMICR with an additional profiling adjustment. Source: CAA (2014), "*Economic regulation at Heathrow from April 2014: Notice granting the licence*" Appendix I.

[7] The JRG note referred to in footnote 5 provides the financeability metrics used by utility regulators in previous price determinations - See Annexes 2.3, 2.4 and 2.5.

[8] Ofgem (2013), *"RIIO-GD1: Final Proposals - Finance and uncertainty supporting document"*, Appendix 3.

[9] Competition Commission (2014), *"Northern Ireland Electricity Limited price determination"*, Table 17.6.

[10] Not only is RPI usually higher than other inflation measures, such as CPI, the ONS has also made methodological revisions which permanently increase the difference between CPI and RPI. See: ONS (2011), "*CPI and RPI: increased impact of the formula effect in 2010*".

[11] Competition Commission (2014), *"Northern Ireland Electricity Limited price determination"* paragraphs 17.91 – 17.97.

The RAV of a DNO is indexed by RPI. The annual cash flows of DNOs are based on applying a real return to the indexed RAV. From these cash flows, the DNOs need to pay interest which typically includes compensation for expected inflation within the coupon (the exception being index-linked debt)[12]. The main driver of the coverage in the PMICR is therefore the difference in the real rates of return and the nominal cost of debt. Where real rates of return used in the WACC are high and inflation low, then the PMICR will be relatively high. Conversely, when real rates of return used in the WACC are low and inflation high, the PMICR will be relatively low.

Higher outturn PMICRs may be achieved by positive operational or financial outperformance and/or positive adjustments relating to the prior control period. Lower outturn PMICRs can be caused by operational or financial under-performance or negative adjustments relating to the prior control period. Low PMICRs are particularly a risk where a regulated utility is likely to exceed the efficient cost of debt assumptions set by a regulator, for example, in the case of high embedded debt costs, when debt was raised at higher prevailing interest rates.

Implication of lower PMICR ratios

Moody's Investors Service Inc. ("Moody's") and Fitch Ratings Inc. ("Fitch") use PMICR as one of the ratios they consider for DNOs. You have not considered the impact of PMICR on Standard & Poor's methodology as you do not consider PMICR to be a relevant measure under their approach.

Moody's applicable global rating methodology for the sector[13] begins with a weighted calculation of thirteen ratings sub-factors. 40% of the calculation is ascribed to four credit metrics[14], of which PMICR is one. The remaining 60% is accounted for by nine qualitative factors, of which an important[15] factor is the "stability and predictability of the regulatory regime". This means that the PMICR ratio and regulatory regime each account for around 15% of the calculated Moody's rating. As such, there are numerous combinations of sub-factor ratings which could result in a given calculated rating result. The relative importance of the sub-factors is captured by the weightings, and the overall calculated rating is not necessarily constrained by the minimum of any sub-factor's associated rating[16].

The target thresholds Moody's provided in the 2009 global sector methodology for the PMICR sub-factor are 1.4x to 2.0x for the Baa class as a whole (i.e. Baa1, Baa2 and Baa3). Separately, Moody's has indicated (in the 2013 context of regulated UK water and energy utilities) that PMICRs in the range of

[12] The use of index-linked debt helps to align the return profiles of both debt and equity investors whose capital appreciates with inflation. Index-linked debt can benefit the PMICR calculation where indexation is excluded from interest expense. Similar benefits may or may not be realised using index-linked swaps.

[13] Moody's (2009) *"Moody's Global Infrastructure Finance Rating Methodology: Regulated Electric and Gas Networks, August 2009"* plus, where applicable, (2007) *"European Regulated Utility Groups: Methodology Update"*.

[14] Financial ratios are calculated on a 3 year historical average basis, although ratings will consider forward looking expectations.

[15] i.e. 15% weighted, where 15% is the highest weighting applied to sub-factors in the applicable sector methodology. The other 15% weighted factors are the PMICR and Net Debt/RAV ratios.

[16] Although lower rating scores are weighted more heavily than higher scores.

1.2x to 1.4x are generally associated with a Baa2 rating, and a range of 1.4x to 1.6x is generally associated with a Baa1 rating[17].

The calculated rating might then be adjusted for structural enhancements, the impact of group consolidated credit profile, size of the company and any other relevant ratings considerations. As such, the rating of the regulated entity could be constrained or supported by other factors including by the group's consolidated gearing (which may include upstream leverage depending on the characteristics of the financing).

The CC has indicated that Fitch's indicative BBB- ratings guidelines for DNOs reflect a PMICR target of 1.3x to 1.4x[18]. Fitch also considers a range of other financial metrics and qualitative factors including, inter alia, the regulatory framework, the underlying risk of the business, operating performance, dividend policy, parental support and liquidity.

The combination of qualitative and quantitative ratings criteria, in part, explains why a number of regulated utilities have retained an investment grade rating despite periodic lower PMICRs. In the water sector Thames Water's Moody's calculated PMICR for FYE 2013 was 1.3x[19] (current corporate family rating ("CFR") of Baa1) and the equivalent ratio for Southern Water for FYE 2013 was 1.2x (current CFR Baa2[20]).

This suggests that instances of PMICR levels below those that regulators have historically targeted may not necessarily lead to stand-alone DNO credit ratings below investment grade, provided other credit metrics and qualitative factors are sufficiently strong and rating agencies continue to ascribe a high rating to the stability and predictability of the regulatory regime. We note however that sustained pressure and/or periodic severe pressure on PMICR could put pressure on credit ratings, although the nature of the pressure will vary based on the actual circumstances.

As set out above, Ofgem considers PMICRs as part of its financeability assessment of DNOs. You requested that we review and comment on, for a sample DNO, Ofgem's calculation of projected PMICRs over the RIIO-ED1 control period and Ofgem's application of such PMICRs to the Moody's rating methodology.

Addressing low PMICR ratios – role of the company

Where financeability challenges are caused by financial under-performance, the regulatory framework incentivises companies to bear and manage finance risk. This has been a fundamental design feature of

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[17] Moody's (2013), *"Speed of Money Cannot Address Potential Financeability Concerns, May 16 2013"*.

[18] Fitch targets a PMICR of 1.3x to 1.4x for a BBB rating on senior unsecured debt (one notch higher than the Issuer Default Rating (IDR). Competition Commission (2014), *"Northern Ireland Electricity Limited price determination"*, Table 17.3.

[19] Moody's (2014), *"Credit Opinion: Thames Water Utilities Ltd, 16 April 2014"*.

[20] Moody's (2014), *"Credit Opinion: "Credit Opinion: Southern Water Services Limited, 13 Aug 2013"*. Moody's downgraded Southern's CFR to Baa2 from Baa1 on July 2011. Moody's noted that a contributing factor to this was a PMICR of less than 1.0x for the year ended 31 March 2011. Moody's (2012), *"Why Index Linked Swaps May Not Provide the Same Cash Flow Benefit as Index-Linked Bonds, February 3 2012"*.

incentive based regulation over the past twenty years. It means that companies gain when they outperform regulatory targets, but also need to bear the cost of any under-performance.

Companies could improve their PMICR ratio by reducing borrowing, prepaying existing debt[21], or not refinancing existing debt at maturity. Options for reducing debt and ultimately improving PMICR include:

- Reducing dividends paid out of in-year cash generation;
- Reducing borrowing used to fund dividends; and/or
- Injecting additional equity.

We note that infrastructure financing agreements commonly feature lock-up mechanisms which prevent the company making distributions if certain criteria are not met. Therefore, low PMICRs may automatically restrict distributions, to the extent this ratio triggers lock-up.

We also note that recent changes to the financial ring-fence mean that the regulatory cash lock-up can now be triggered by a material breach by the DNO of any financial covenant with a bank or other financial institution.

Addressing low PMICR ratios – role of the regulator

Ofgem's current practice is to review the financeability of companies on both a notional and actual capital structure basis. While the notional approach is consistent with the notional capital structure used to set the WACC for the purposes of calculating allowable returns, assessing financeability on an actual capital structure basis helps to identify whether companies are likely to face financeability challenges. When assessed on an actual basis, financeability is particularly impacted by companies' embedded debt costs.

You have informed us that you are considering a change to the cost of debt index mechanism which seeks to address the impact of DNOs' actual costs of debt.

Should further measures be required to support financeability, Ofgem might consider cash flow profiling on an NPV-neutral basis.

Summary

We note the following:

- UK regulators have historically set price determinations with PMICR ratios around or above 1.4x, but more recently both outturn and regulators' targeted PMICR ratios have fallen;
- PMICR is considered by rating agencies in the context of other quantitative factors as well as qualitative measures;

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[21] The practicality of this may vary depending on the existence, amount and nature of any prepayment penalties for different debt instruments as well as market conditions.

- Instances of PMICRs being below levels that regulators have historically targeted may not necessarily lead to stand-alone DNO ratings below investment grade, provided other credit metrics and qualitative factors are sufficiently strong and rating agencies continue to ascribe a high rating to the stability and predictability of the regulatory regime. We note however that sustained pressure and/or periodic severe pressure on PMICR could put pressure on credit ratings, although the nature of the pressure will vary based on the actual circumstances;
- There may be a range of options available to companies to improve PMICR, such as equity injection, reducing dividends and/or deferring dividends in order to reduce gearing;
- While the documented rights of lenders vary considerably, it is typical for lenders to have rights that in certain circumstances increase their controls when the borrower's financial position deteriorates. Such control may include the restriction of distributions, either directly by lenders or by triggering the regulatory ring-fence lock-up; and
- Ofgem recognises that it has an important role in considering the financeability of DNOs. If financeability remains challenging after any changes to the cost of debt index, Ofgem might use NPV-neutral revenue profiling to help companies manage their financeability challenges.

Yours sincerely,

PricewaterhouseCoopers LLP

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