MEMORANDUM

TO	VREG
FROM	Dan Harris, Lucrezio Figurelli
SUBJECT	**Brattle Responses to Stakeholders' Reactions**
DATE	7 June 2024

I. Introduction

Within the context of the ongoing public consultation with stakeholders related to the cost of capital of the Flemish DSOs for the regulatory period 2025-2028, VREG has asked us to assess and respond to certain comments put forward by Fluvius related to the calculation of the cost of debt, the cost of equity and the infra-period WACC update. Below we detail our responses.

Our responses are limited by the information available to us. For example, we cannot assess whether Fluvius' arguments about the costs of and the constraints to the refinancing of existing debt are correct.

While we see the logic behind some of the comments that Fluvius makes, ultimately we note that the WACC that Fluvius has proposed is very close to the average of the WACC decisions of other regulators, after adjusting for changes in interest rates.[1] We conclude that VREG's proposed WACC is reasonable.

II. Cost of Debt

Fluvius makes several comments on the allowed cost of debt. This is perhaps not surprising, because there are two important factors in this regulatory period that have made assumptions regarding the cost of debt more critical:

[1] See Brattle report, Figure 5, p.31.

- First, after a long period of low rates, interest rates have increased significantly and unexpectedly.

- Second, investment needs, at least for electricity DSOs, have or will increase due to the energy transition. Hence, borrowing is likely to increase.

We respond to Fluvius' arguments below.

A. Normative vs. Embedded Cost of Debt and Implications for the Remuneration of Equity

1. Fluvius' main comment is that VREG should adopt an embedded debt approach, rather than the current normative approach. According to Fluvius, the embedded cost approach is preferrable because it prevents Fluvius from making either a profit or a loss on its debt. In Fluvius' view, this provides two additional reasons why an embedded cost approach should be preferred to a normative approach:

    - *First*, Fluvius claims that in the present case its actual cost of debt is higher than the rate allowed by VREG. This creates a deficit that reduces the return to equity and undermines the ability to raise equity and make the required investments;

    - *Second*, Fluvius claims that investors and banks explicitly favor an embedded cost approach because it lowers the risk of default. Fluvius considers that an embedded cost approach would result in lower financing costs that in a normative system.

2. In our view, regulators are generally free to choose between a normative and an embedded cost approach. Indeed, regulators use both approaches, which each have advantages and disadvantages:

    - The advantage of a normative approach is that it gives the DSOs an incentive to borrow efficiently. The disadvantage is that if the normative cost of debt is not estimated well, then the WACC may be too low, thus reducing the remuneration of equity.

    - The advantage of an embedded cost approach is that it will, by construction, reflect the actual cost of debt of the DSOs. However, the embedded cost approach provides no incentive to borrow efficiently.

3. We broadly agree with Fluvius claim that setting a cost of debt that is too low reduces the return to equity and the ability to raise equity to finance investments. However, in selecting a normative approach the regulator is more concerned about providing the appropriate

incentives to efficient borrowing. Also, the regulator can use alternative tools to promote new investments.

4. Conversely, we find Fluvius' claim that the embedded cost approach could result in lower financing costs speculative, and it seems to contradict Fluvius' other claims. On the one hand, Fluvius argues that equity holders must pay for the low allowed cost of debt. On the other hand, Fluvius argues that lenders demand a higher rate because they are worried about repayment. But given that equity holders are paying for the difference between the actual and allowed cost of debt, it seems unlikely that the lenders would worry much about the method for setting the cost of debt. Indeed, as far as cost of debt is concerned, rating methodologies focus mainly on financial metrics such as leverage and coverage ratios. As long as the firm has sufficient cash flow to cover principal and interest payments, it seems unlikely that lenders would ask for any significant increase in the cost of debt if equity holders earn less than the actual cost of equity.

5. As regards the implementation of a normative approach or an embedded cost approach, both approaches involve similar oversight and work for VREG. Under the normative approach VREG must estimate the cost of debt. Under the embedded cost approach VREG must perform due diligence on the cost of debt.

6. Finally, we note that the normative approach is more common in the EU, though several regulators use the embedded cost of debt. Conversely, in the United States the embedded cost of debt is the default approach and does not seem to have been seriously challenged or to have created serious issues. The debate is always on the cost of equity.

B. Use of a 10-Year Unweighted Average and Early Payment

7. Fluvius further complains about several aspects of VREG's normative approach.

8. For existing debt, Fluvius claims that VREG should not consider a 10-year average, but a weighted average based on Fluvius' actual debt profile. This is because, according to Fluvius, debt needs are influenced by regulatory policies – e.g. the installation of meters and the energy transition – and because even in normal circumstances a linear refinancing of debt is unrealistic.

9. Fluvius notes that its financing needs have increased significantly since 2019 and 2020, and that Fluvius could not have foreseen this increase in 2014. It follows, according to Fluvius, that the use of a linear borrowing is not reasonable.

10. In response, we note that the use of an unweighted 10-year average by regulators to calculate historic debt is not uncommon. For example, Italy and the Netherlands both apply

this method. We also note that in the past regulated companies have benefited from the use of long-term averages as interest rates were falling after 2015.

11. Additionally, VREG's assumption of linear borrowing could actually overcompensate the DSO, because, at least in theory, they could try and borrow more when interest rates are lower by, for example, refinancing debt when interest rates fall.

12. Fluvius also objects to the statement in the Brattle report, that it could lower its cost of borrowing by refinancing debt when interest rates fall. Fluvius claims that in practice there are legal and cost barriers to refinancing.

13. It seems strange that Fluvius finds it so difficult to refinance. Many companies do refinance their debt by, for example, buying back their loans. Over 2019-2021 interest rates were more than two percentage points lower than in 2014. Accordingly, Fluvius had significant incentives to overcome any barriers to refinancing. Fluvius has not provided any detailed evidence of what the barriers to refinancing are, and so it is not possible for us, or VREG, to assess Fluvius' claims.

14. Fluvius also argues that carrying out significant early refinancings on top of the refinancing of expiring debt would further increase pressure on credit markets, with an upward effect on spreads. It is not clear to us precisely what Fluvius means here. if it means that Fluvius' borrowing is so significant that it would increase credit spreads, we find that highly unlikely. European debt markets are large and liquid, and any borrowing by Fluvius would represent a relatively small fraction of it. In our view, refinancing may actually lower credit spreads for Fluvius, because lenders would account for the beneficial effect on Fluvius financial position of lower interest rates.

C. Ratio of Old and New Debt

15. Fluvius argues that the ratio of existing to new financial debt should be maintained at 60/40 in line with the real ratio of existing debt to expected new financing.

16. Fluvius's claim is inconsistent with the financial model we have analysed. As we explained in the Brattle Report, we have calculated the expected ratio of old and new debt using the financial model. We considered different scenarios in which a combination of equity and debt meets the financing needs. Overall, we found that the share of new debt over the next regulatory period (2025-2028) would range between 27% and 33%.

17. It is thus not clear to us how Fluvius can argue that the share of new debt over the next regulatory period would be around 40%. Likely, Fluvius must be assuming that all required

investments are financed by debt and focusing on the share of new debt only for the electricity DSOs.

III. CAPM and Illiquidity Factor

18. Fluvius argues that VREG's remuneration of Fluvius equity, which is based on the CAPM formula, lacks the inclusion of an illiquidity factor. Specifically, Fluvius notes that in the CAPM, beta is the only risk factor taken into account. Fluvius claims that illiquid investments demand a higher rate of return than liquid investments, and that because unlisted companies such as Fluvius are less liquid than listed companies, they need a higher return to equity investments. According to Fluvius VREG's WACC methodology should take this into account.

19. We broadly disagree with Fluvius arguments.

20. First, the CAPM reflects the regulatory best practice for calculating the WACC of regulated energy networks. We are not aware of any European regulator applying an illiquidity adjustment to the WACC of a regulated network.

21. Second, there is no academic reasoning for a liquidity adjustment in the CAPM. Liquidity is only considered in the calculation of beta – only liquid stocks allow a reliable beta estimate. Liquidity may also affect the overall value of a company, but this would not affect the WACC.

22. Third, VREG is correct that if a liquidity discount applied to Fluvius, it would apply to the value of Fluvius. If Fluvius is correct that a liquidity discount applies then, given that VREG calculates the return on the asset value without a liquidity discount, investors would already earn a higher return on the actual (lower) market value of Fluvius. There is no need for a further adjustment.

IV. Infra-Period WACC Update

23. Fluvius favors VREG's proposal to update the cost of capital allowance annually, as this will reduce the risk of deviations between market conditions and the WACC. However, Fluvius suggests that an ex-post adjustment would be a more correct mechanism to deal with interest rate fluctuations.

24. We note that an ex-post adjustment would shift interest rate risk from Fluvius to end users and would require to correct tariffs ex post. This is undesirable, as consumers would not know energy costs at the time of consumption and would not be able to make efficient choices.

25. On the other hand, the use of an ex-ante approach and the allocation of interest rate risk to network operators are quite common, and an annual update of the risk-free rate and of the cost of debt adequately reduces the risk of large misalignments between current market conditions and the regulatory WACC that the DSO would bear if the WACC was set for a regulatory period of several years.