BEFORE THE COMPETITION AND MARKETS AUTHORITY

B E T W E E N : -

SP TRANSMISSION PLC

Appellant

and

THE GAS AND ELECTRICITY MARKETS AUTHORITY

Respondent

OBSERVATIONS ON CMA PR19 FINAL REPORT ON BEHALF OF THE APPELLANT

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1. Introduction

1. We have been asked by SP Transmission plc ("SPT") to set out points arising from the CMA's PR19 Final Report dated 17 March 2021[1] ("CMA PR19 Report") which are pertinent to clarifying or updating the matters addressed in our previous reports dated 3 March 2021 which accompanied SPT's Notice of Appeal.

2. These points relate to SPT's appeal grounds 1 (cost of equity) and 3 (ongoing efficiencies).

3. Our previous reports on those grounds are referred herein to as the "NERA CAPM Report"[2] and the "NERA Ongoing Efficiency Report"[3] respectively. The NERA CAPM Report was authored by both of us. The NERA Ongoing Efficiency Report was authored by Mr Grayburn only.

2. CAPM Parameters and Aiming-Up

2.1. Risk-Free Rate (RFR)

In relation to NERA CAPM Report Section 2.1ff: "*In its Final Determinations, GEMA relies on index linked gilts (ILG) as proxy for RFR*"

4. In the RIIO-T2 Final Determinations, GEMA used the ILG rate alone as a proxy for the RFR.

5. The CMA PR19 Report accepted arguments and evidence that "*the ILG rate available to the government is unlikely to be a perfect proxy for the RFR, and that the 'true' rate of RFR in the market is likely to be above this level.*"[4]

6. As we explain in the NERA CAPM Report[5], ILGs exhibit special safety and liquidity characteristics (referred to as the convenience premium), which push their yields below those required for a zero-beta asset. The convenience premium therefore introduces a gap between sovereign and corporate risk-free financing rates. Using ILG rates as a basis of the RFR without adjustment, as GEMA has done in the RIIO-T2 Final Determinations, violates the CAPM assumption that the RFR should reflect a

1 CMA (2021) Anglian Water Services Limited, Bristol Water plc, Northumbrian Water Limited and Yorkshire Water Services Limited price determinations. Final Report. 17 March 2021.

2 Exhibit [RH1(1)]. References to page numbers of the exhibits are to the electronic pdf page numbers.

3 Exhibit [JG(1)]

4 CMA PR19 Report, para 9.158.

5 NERA CAPM Report, Section 2. [RH1(1)/p23 - 37]

rate at which all market participants can borrow and lend. An unbiased estimate of the RFR available to all market participants therefore needs to reflect a rate available to all market participants, including non-government participants who cannot borrow at the ILG rate. This can only be achieved either by adding the estimate of the convenience premium to the ILG rate or inferring the RFR from highly rated (AAA) corporate bond yields.

In relation to NERA CAPM Report Section 2.3: "*GEMA's response to CMA PR19 that marginal investor is not relevant to energy sector*"

7. In the RIIO-T2 Final Determinations, GEMA argued that the use of ILG is justified on the basis that the marginal investor in the regulated utilities sector is a net lender.[6]

8. Even if this were the case for energy (which we explain in the NERA CAPM Report it is not[7]), our previous evidence has set out why this is not relevant for the determination of the RFR. The RFR is a market-wide parameter which is not specific to any sector.[8]

9. The CMA PR19 Report agrees that the exact identity of the marginal investor in the water (and we suggest by parity of reasoning energy) sector is not relevant for the determination of the RFR. Instead the CAPM model, applied in a situation of different market participants with different borrowing and lending rates, requires that the RFR reflects the weighted average of the risk-free rates of both borrowers and lenders.[9] The CMA concludes: *"In this determination we are required to identify a single cost of capital assumption as a fair return on water assets. We do not consider it is clear that defining the marginal investor (or the balance of marginal investors) is necessary, or in more practical terms would likely provide anything more than a spuriously accurate estimate of the RFR"*.[10]

6 NERA CAPM Report, para 63. [RH1(1)/p29]

7 NERA CAPM Report, para 66. [RH1(1)/p30]

8 NERA CAPM Report, para 65. [RH1(1)/p29 - 30]

9 The CMA states: "*We consider that our interpretation of the CAPM in a situation of different borrowing and lending rates takes account of both investment practice and academic research, and is in principle in line with Brennan's (1971) often quoted finding that the market equivalent RFR is a weighted average of the RFR of all individual investors.*" CMA PR19 Report, para 9.263.

10 CMA PR19 Report, para 9.265

In relation to NERA CAPM Report Section 2.4: "*GEMA's cross-check on use of ILG does not satisfy requirements of CAPM RFR*"

10. The CMA PR19 Report rejects 20-year SONIA swap rates as well as nominal government bond yields as relevant cross-checks on the RFR. These alternative cross-checks were adopted by GEMA in respect of the RIIO-T2 Final Determinations.

11. The CMA explains that SONIA are "*inherently short-term rates*", and that "*swap (derivative) instruments that attempt to extend the horizon to longer periods appear to suffer from distortions*", while also requiring posting of collateral, making them an unsuitable proxy for the RFR.[11]

12. The CMA observes that nominal government bonds are unlikely to have features that ILGs do not have that would make them a better proxy for the RFR, while they also create additional complications due to the inclusion of inflation risk and liquidity premia, which makes it unlikely that their use would improve the RFR estimate.[12]

13. We raised similar concerns with GEMA's cross-checks in the NERA CAPM Report, concluding they do not provide reliable evidence of the CAPM RFR for RIIO-T2.[13]

In relation to NERA CAPM Report Section 2.6: "*Proposed remedy*"

14. The CMA PR19 Report estimates the RFR to lie between the ILG rate and the rate on AAA corporate debt, concluding that the "*the midpoint of our 'ILG – AAA' range (-1.34%) presents a reasonable estimation of the market RFR.*"[14]

15. In the NERA CAPM Report[15], we presented two approaches to estimating the appropriate CAPM RFR: i) a bottom-up estimate, derived by adjusting upwards the ILG rate to take into account the convenience premium; and ii) a top-down approach, which adjusts downwards the yields on AAA corporate debt to remove the effects of the liquidity premium, default risk and inflation risk premium.

[11] CMA PR19 Report, paras 9.196-9.197.

[12] CMA PR19 Report, paras 9.183-9.185.

[13] NERA CAPM Report, Section 2.4. [RH1(1)/p30 - 32]

[14] CMA PR19 Report, para 9.265.

[15] NERA CAPM Report, para 79. [RH1(1)/p36]

16. Our proposed approach provides a similar outcome to selecting the mid-point of the unadjusted ILG-AAA range, as in the CMA PR19 Report, which we consider also represents a reasonable estimate of the RFR for RIIO-T2.

2.2. Total Market Return (TMR)

In relation to NERA CAPM Report Section 4.2.1: "*GEMA uses an unreliable 'RPI/CPI' historical inflation series and ignores established RPI-deflated historical returns*"

17. The CMA PR19 Report concludes that both the CED-RPI and CED-CPI historical inflation indices should be used to deflate historical returns for the UK market[16], instead of relying solely on the historical CPI index (as GEMA did in the RIIO-T2 Final Determinations based on UKRN's report). The CMA's approach is consistent with the approach we have adopted in the NERA CAPM Report.[17]

In relation to NERA CAPM Report Section 4.2.2: "*GEMA ignores established estimators of expected returns which produce substantially higher TMR estimates for GEMA's (implicitly) assumed holding period/investment horizon of 1 to 10 years*"

18. The CMA PR19 Report declines to use the approach of estimating the historical TMR which GEMA adopted based on the UKRN report – namely, the approach of taking the geometric mean and applying a volatility adjustment – on grounds of robustness, notably in relation to the size of the required volatility adjustment.[18]

19. We remain sceptical about the robustness of the evidence supporting alleged serial correlation in historical returns for reasons set out in the NERA CAPM Report,[19] but agree with the CMA that averaging actual historical returns over a relevant time horizon would be the appropriate approach to addressing any concerns regarding serial correlation.[20]

In relation to NERA CAPM Report Section 4.2.3: "*GEMA overstates the investment horizon/holding period for the marginal investor*"

20. The CMA PR19 Report considers returns over a 10 to 20 year holding period for the purposes of estimating the TMR.[21]

16 CMA PR19 Report, paras 9.293-9.296.

17 NERA CAPM Report, Section 4.2.1. [RH1(1)/p59 - 65]

18 CMA PR19 Report, paras 9.337 – 9.338.

19 NERA CAPM Report, Section 4.2.2.1. [RH1(1)/p67 - 69]

20 CMA PR19 Report, para 9.328.

21 CMA PR19 Report, para 9.330.

21. As explained in the NERA CAPM Report, a holding period of 1 to 5 years is the appropriate assumption based on average holding periods for different types of investors in the FTSE, which also supports the inclusion of the simple arithmetic mean within the TMR range.[22]

In relation to NERA CAPM Report paras 149-151: USD-converted UK returns

22. The CMA PR19 Report recognises that "*while US dollar returns on the UK market could be considered as a cross-check on the CPI/RPI debate, it relies on purchasing power parity holding and we consider that to be a strong assumption*." [23] Accordingly, the CMA PR19 Report accords with our assessment that GEMA's proposed cross-check on the TMR using USD-converted UK returns is not appropriate, because it relies on questionable assumptions.[24]

In relation to NERA CAPM Report Section 5.5: "*Investment manager surveys are unreliable*"

23. The CMA PR19 Report expresses the view that "*survey evidence should be treated with caution*"[25], reiterating the observation that "*investor surveys and practitioner forecasts tend to produce a broad range of estimates, which as a result usually provide limited guidance on a reasonable range for the TMR*".[26]

24. We reached a similar conclusion in the NERA CAPM Report, noting that survey evidence is sensitive to framing of the questions being asked and can produce a wide range of estimates, making it unreliable as a cross-check on the TMR.[27]

The view that historical ex-ante methods imply that 40-80bps of UK historical returns were due to "good luck"

25. The CMA PR19 Report presents new estimates of the TMR using the historical ex-ante approach, supporting a TMR of 6.2 to 6.7 per cent real CPI(H) deflated based on UK returns data.[28]

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22 NERA CAPM Report, Section 4.2.3 and 4.3. [RH1(1)/p72 – 74 and p81-82]

23 CMA PR19 Report, para 9.392.

24 NERA CAPM Report, paras 149-151. [RH1(1)/p64-65]

25 CMA PR19 Report, para 9.379.

26 CMA PR19 Report, para 9.377.

27 NERA CAPM Report, Section 5.5. [RH1(1)/p92-94]

28 CMA PR19 Report, para 9.393. The CMA reports historical ex-ante estimates of 5.2 to 5.7 per cent real RPI. Using the CMA's estimated RPI-CPI(H) wedge of 0.9 per cent, this is equivalent to 6.2 to 6.7 per cent real CPI(H).

26. We have concerns with this. As noted by the CMA, the historical ex-ante approach estimates expected returns by stripping out good or bad "luck", which may not be repeated in the future, from historical realised returns.[29] The CMA's estimates imply that the historical returns for the UK market include 40 to 80 bps of "good luck" that is not expected to be repeated in the future.[30] This conclusion would appear to be inconsistent with the evidence presented by Dimson Marsh and Staunton (DMS), which in successive publications shows that the element of UK historical returns attributable to "good luck" is in fact negligible,[31] implying that the historical ex-ante estimates should be close to the historical ex-post estimates.

27. If it will assist the CMA, we are happy to provide more detailed evidence relating to the use of historical ex-ante evidence in estimating TMR.

2.3. Beta

In relation to NERA CAPM Report Section 3.2.1: "*GEMA incorrectly relies on long-run estimation windows/averaging periods which fail to reflect relevant forward looking risks*"

28. We agree with the approach in the CMA PR19 Report of placing weight on betas estimated using averaging periods/estimation windows of up to 5 years,[32] in contrast to solely focussing on long-run estimates over 10 to 15 years as GEMA has done in the final determinations for RIIO-T2.[33]

In relation to NERA CAPM Report Section 3.2.2: "*GEMA's beta estimate is unduly affected by the GFC period*"

29. We note the CMA also places some weight on 10-year betas for water stocks,[34] but as we show in the NERA CAPM Report, for the purposes of the energy sector beta this approach is particularly problematic for National Grid plc ("NG") stock, given NG's

[29] CMA PR19 Report, para 9.340.

[30] Calculated as the difference between the CMA's TMR range estimated using the historical ex-post approach of 6.6 to 7.5 per cent and the historical ex-ante approach of 6.2 to 6.7 per cent (both real CPI(H) deflated).

[31] The DMS presents a decomposition of the historical realised returns for different markets between dividend yield, plus dividend growth plus what DMS refers to as the "expansion in the P/D ratio", where the last element of the historical return related to good or bad "luck" that is not expected to be repeated in the future (see e.g. Credit Suisse Global Investment Returns Yearbook 2020, Dimson et al. (DMS), February 2020, p.35-38). The 2020 DMS publication shows the "expansion of the P/D ratio" was -12bps for the UK market, i.e. small amount of "bad" luck. Source: Credit Suisse Global Investment Returns Yearbook 2020, Dimson et al. (DMS), February 2020, p.36

[32] CMA PR19 Report, para 9.479ff.

[33] NERA CAPM Report, para 90. [RH1(1)/p43]

[34] CMA PR19 Report, para 9.479.

beta is unduly depressed by the inclusion of the period around the global financial crisis and subsequent sovereign debt crises due to "flight to safety" effects.[35] We would therefore caution against the CMA adopting the same approach in an energy context.

2.4. Aiming-up and role of cross-checks in selecting point estimate

In relation to NERA CAPM Report Section 6.3.1: "*GEMA unduly discounts consequences of failing to aim-up*"

30. The CMA PR19 Report aims up in setting the point estimate for the cost of capital. It sets out the supporting arguments at para 9.1269, noting in particular that "*there is substantial uncertainty around the level of the WACC*" and, where the cost of capital is set too low, there is a risk that "*the wider social benefits of investment are lost, either because companies do not identify investments or put resources into planning for them, or because the finance to deliver those investments is unavailable*."[36]

31. The NERA CAPM Report sets out a similar rationale to support the principle of aiming-up at RIIO-T2: i.e. that insufficient investment returns risks discouraging companies from identifying and proposing otherwise desirable investment projects.[37] We also referred to a risk that investors choose to exit the sector or are unwilling to put in further capital at the allowed rate of return, where this is set lower than the true cost.[38] As set out in paragraph 30, the CMA PR19 Report also considers these points as reasons for aiming up.

32. The CMA PR19 Report notes that "*water is an essential service and there are long-term risks to water customers (and the environment) associated with the performance of deteriorating or inadequate water infrastructure*."[39] It also observes that "*given the expected scale of investment needed to address climate change, it expects a long-term benefit where the allowed return is sufficient to provide incentives to identify investments over time*."[40]

35 NERA CAPM Report, paras 97-99. [RH1(1)/p47-48]

36 CMA PR19 Report, para 9.1269.

37 NERA CAPM Report, para 251. [RH1(1)p101]

38 NERA CAPM Report, para 252. [RH1(1)/p101]

39 CMA PR19 Report, para 9.1274.

40 CMA PR19 Report, para 9.1280.

33. The CMA acknowledges that the risks associated with water are different to energy, and there is "*no direct comparator to the cost of 'blackouts'*."[41]

34. However, we have identified in the NERA CAPM Report analogous investment requirements in the energy sector – including ensuring investment to maintain and improve system reliability and the need the need to invest to reduce carbon emissions to net zero by 2050.[42] We also provide evidence that the quantum of investment in the energy sector is greater than that in water over the near and medium term.[43]

35. Specifically in a context where much of the reduction in question related to changes in the methodology for calculating cost of equity (as opposed to market data), the CMA PR19 Report identifies that there needs to be an appropriate level of caution in making significant changes to the cost of capital.[44] We agree. The NERA CAPM Report described how GEMA's changes in estimation method lead to greater uncertainty on the true cost of capital at RIIO-T2 than at any previous price control, increasing the need to aim up.[45]

In relation to NERA CAPM Report Section 5.2.2: Derivation of MARs

36. The CMA PR19 Report identifies that market-to-asset (MAR) evidence does not provide a robust basis to conclude on the appropriate allowed return for water networks.[46] Our opinion is to like effect.[47]

3. Ongoing Efficiency Targets

Total Factor Productivity (TFP) comparator evidence

37. The CMA PR19 Report considers that equal weight should be given to a broad set of comparators in setting the TFP target.[48] The NERA Ongoing Efficiency Report set out our view that TFP evidence from relevant sectors provides a stretching target in

41 CMA PR19 Report, para 9.1274.

42 NERA CAPM Report, paras 253-254. [RH1(1)/p102]

43 NERA CAPM Report, para 110. [RH1(1)/p50]

44 CMA PR19 Report, para 9.1390.

45 NERA CAPM Report, para 256. [RH1(1)/p103]

46 CMA PR19 Report, paras 9.1364-9.1366.

47 NERA CAPM Report, Section 5.2.2. [RH1(1)/p85-88]

48 CMA PR19 Report, para 4.522.

setting the ongoing efficiency target.[49] By contrast, GEMA's target is materially higher than productivity evidence from its comparator set.[50]

Recent productivity evidence

38. The CMA PR19 Report does not apply a specific quantitative downwards adjustment for lower post crisis productivity growth, but instead considers this in the round when coming to final frontier shift estimate, albeit concluding that the downward adjustment should be limited.[51] As set out in the NERA Ongoing Efficiency Report, we also consider that Covid will likely have a negative effect on future OE.[52] GEMA relies on the high productivity growth period while ignoring evidence from reputable forecasts suggesting much lower future growth.[53]

Focus on GO measure

39. In setting the frontier shift, the CMA PR19 Report focuses on the GO measure although gives some weight to the VA measure.[54] As set out in the NERA Ongoing Efficiency Report, the correct approach is to place reliance on both measures. By contrast, GEMA has incorrectly relied exclusively on VA measures to support its assumptions and so cannot credibly claim to have drawn on evidence from GO measures.[55]

[49] NERA Ongoing Efficiency Report, paras 99-100. [JG1(1)/p32]

[50] NERA Ongoing Efficiency Report, para 99. [JG1(1)/p32]

[51] CMA PR19 Report, para 4.537.

[52] NERA Ongoing Efficiency Report, para 91. [JG1(1)/p30]

[53] NERA Ongoing Efficiency Report, para 92. [JG1(1)/ p30]

[54] CMA PR19 Report, para 4.545.

[55] NERA Ongoing Efficiency Report, Section 2.3.2. [JG1(1)/p39-41]

STATEMENT OF TRUTH

We confirm that, where the facts stated in these Representations are within our knowledge, we have clearly identified them and we believe them to be true. We confirm that the opinions we have expressed represent our true and complete professional opinion.

Signed … ……..

Dr Richard Hern

Dated: 23 April 2021

Signed ……..

James Grayburn

Dated: 23 April 2021