BEFORE THE COMPETITION AND MARKETS AUTHORITY

AN APPEAL UNDER SECTION 23B OF THE GAS ACT 1986

BETWEEN:

NORTHERN GAS NETWORKS LIMITED

Appellant

and

THE GAS AND ELECTRICITY MARKETS AUTHORITY

Respondent

APPELLANT'S REPLY TO GEMA'S RESPONSE

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1 Introduction

(1) This submission is made by Northern Gas Networks Limited ("**NGN**") (the "**Appellant**"), in relation to its appeal to the Competition and Markets Authority ("**CMA**") against the second determination for gas distribution ("**GD**") made by the Gas and Electricity Markets Authority ("**GEMA**") under the RIIO price control regime ("**RIIO-GD2**") (the "**Appeal**"). This submission is NGN's reply ("**Reply**") to GEMA's response[1] of 23 April 2021 to the Appellant's Notice of Appeal ("**NoA**") filed on 3 March 2021.[2]

(2) In the interests of efficiency, this Submission focuses on some key points raised in GEMA's Response which the Appellant considers merit being responded to or clarified. To the extent the Appellant has not addressed any arguments or factual evidence made in the Response, the Appellant should not be considered to accept those arguments and/or evidence.

(3) The remainder of this Reply is structured as follows: Section 2 sets out some key overarching comments on GEMA's Response and its treatment of evidence and Sections 3 to 6 address GEMA's main comments in relation to the Appellant's grounds of appeal.

(4) This Reply is accompanied by the following supporting evidence:

(i) Second Cost of Equity Report (Exhibit KPMG_COE2_1);

(ii) Beta Report; (Exhibit KPMG_BETA1_1);

(iii) MARS Report (Exhibit KPMG_MARS1_1);

(iv) Second Witness Statement of David Pearson (DP2); and

(v) Third Witness Statement of Ian Alexander (IA3).

2 Overarching comments on the Response

2.1 GEMA seeks to invoke "regulatory discretion" to justify poorly evidenced decision-making

(5) GEMA's Response seeks to justify many (if not all) of the material errors that are the subject of the Appeal by portraying them as a reasonable exercise of regulatory judgement or discretion, a proposition which is referenced over 80 times in GEMA's Finance and Totex Responses.[3] GEMA repeatedly seeks to present the Appellant's case as "*no more than disagreements with the way in which GEMA has exercised its expert regulatory discretion*".[4]

(6) It is well-established, however, that the concept of regulatory discretion is legally bounded and does not obviate the need for GEMA to take well-evidenced decisions. As confirmed by the CMA in the *NPG Determination*, "*there has to be, in our view, a limit to the discretion of regulators to make adjustments*" and ultimately "*[t]he exercise of regulatory discretion remains bounded and subject to legal principles*".[5] GEMA's margin of discretion does not allow GEMA to take decisions based on extremely selective, inconsistent and/or inadequate evidence and assumptions.[6] Not only does

[1] Response to Appeals on Finance Issues and TNUOS ("**Finance Response**") and Response to Appeals on Totex Modelling, Efficiency and Licensing ("**Totex Response**") (together, including supporting witness statements "**Response**").

[2] Unless otherwise stated, the Appellant adopts the definitions used in its NoA and its submission on the CMA's final report on PR19 of 23 April 2021 ("**PR19 Submission**"). Unless otherwise stated, references to PR19 are references to the PR19 Final Report (NGNPR19_001).

[3] See e.g. Finance Response*,* paras. 36 to 38, 86, 127, 231, 239.

[4] Finance Response, para. 6.

[5] *NPG Determination,* para. 4.142 (NGNNOA1_194).

[6] This principle was clearly expressed by the CMA in the *NPG Determination*, noting that "*there has to be […] a limit to the discretion of regulators […] where the consultation process has failed to demonstrate evidence in support of those adjustments*" (emphasis added). *NPG Determination,* para. 4.142 (NGNNOA1_194).

GEMA need to have the evidence to support its decisions and the exercise of discretion, but that evidence must be rigorously tested and well-founded. This requirement was confirmed by the CMA in *Firmus*, which criticised the "*lack of rigour in the [regulator's] approach*".[7] It follows that GEMA should not consistently and systematically make one-sided decisions at the very low end of what is supported by evidence, particularly if such evidence is selective, flawed and/or inconsistent.

(7) The Appellant considers that GEMA's appeal to regulatory discretion seeks to distract from the fact that GEMA's decisions cannot reasonably be justified and are wrong, including:

(i) setting a cost of equity ("**CoE**") which is simply too low. GEMA argues that the question the CMA has to answer is whether GEMA has properly and reasonably exercised its regulatory judgement and that a comparison with other price controls or regulators' decisions on CoE is uninformative.[8] This is plainly wrong: establishing whether any judgement is reasonable and rational requires such comparison;

(ii) introducing the outperformance wedge ("**OW**") absent any robust evidence of whether outperformance in RIIO-GD2 is likely, while characterising the Appellant's well-founded concerns over the adverse incentive properties of the OW as no more than "*satellite issues*" which do not need to be considered by the CMA;[9] and

(iii) introducing an innovation uplift to its Ongoing Efficiency ("**OE**") target. GEMA accepts that the assumptions underpinning the uplift were "*consciously simplifying*", "*broad*" and lacked a "*high degree of accuracy*". As demonstrated by the evidence submitted by the Appellant with its NoA, the decision to apply the uplift and the methodology and assumptions underpinning its quantification are manifestly flawed.[10]

2.2 GEMA's assessment of the evidence is fundamentally imbalanced in many areas

(8) GEMA's Response frequently asserts that its FD "*involved a holistic and qualitative assessment of various competing pieces of evidence*"[11] (in relation to OE) and that it "*weighed up […] matters […] using its expert regulatory judgement*"[12] (in relation to OW). GEMA further suggests that this judgement cannot be seen to be in error where there is "*significant space for reasonable disagreement in selecting and giving weight to the available evidence*."[13]

(9) The Appellant respectfully submits that a number of GEMA's decisions are extreme and not supported by a reasonable consideration of the evidence. The fact that GEMA needs to make decisions based on various evidential sources does not absolve GEMA of the need to ensure that it takes into account all relevant evidence, gives it appropriate weight and adopts a decision which is consistent with such weighing of evidence. In many places, GEMA simply asserts that it considered evidence as part of a rounded assessment or has given "*limited weight*" to it.[14] The reality is that GEMA appears to give no weight to such evidence.

(10) This is strikingly apparent in relation to OE, where GEMA claims to have accounted for factors such as GO productivity measures and the targeted comparator set, but ultimately sets an OE target that is higher than CEPA's estimates which gave no weight to those factors. This is also apparent in

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7 The CMA stressed that the regulator did not make use of available (or alternative) methodologies to gather evidence and found that the regulator "*made an error when it decided to make an adjustment […] which was not based on evidence, in circumstances in which it could and should have sought to obtain evidence on which to base its decision". Firmus*, para. 5.147 (NGNNOA1_206).

8 Finance Response, para. 264.

9 Finance Response, para. 284.

10 Totex Response, para. 167.

11 Totex Response, para. 8(1).

12 Finance Response, para. 363.

13 Finance Response, para. 60.

14 Finance Response, paras. 138, 152, 160, 161; Totex Response paras. 103, 123(1), 147(6).

relation to CoE, which is the result of a cumulative series of one-way choices, resulting in a CoE allowance that is too low. For every single parameter, GEMA consistently and systematically selected a point estimate at the lower end or below those suggested by the proper approaches to estimation.

2.3 GEMA's lack of rigour is problematic given its material departures from regulatory precedent

(11) GEMA's failure to ensure that its decisions are adequately justified and well-evidenced is particularly problematic given that it has introduced a number of novel regulatory measures or departed materially from regulatory precedent, including:

(i) setting a CoE lower than relevant regulatory precedent (including PR19 and RIIO-GD1), in spite of the fact that gas faces significantly more risk and uncertainty than water;

(ii) introducing the OW which is without regulatory precedent; and[15]

(iii) setting an OE target above regulatory precedents and applying a novel innovation uplift.[16]

(12) GEMA rejects the Appellant's view that "*the regulator must meet a heightened standard when seeking to introduce a new measure into the price control*".[17] The Appellant respectfully disagrees with GEMA. As set out in the NoA, decisions that depart from regulatory precedent require robust justification.[18] The CMA has concluded that where GEMA had undertaken a "*novel benchmarking exercise*", the reliability of GEMA's conclusions "*required careful consideration and cogent justification*".[19]

(13) Although the decision in the *NPG Determination* is fact specific, GEMA's suggestion that the decision in the *NPG Determination* lacks any broader relevance is misplaced.[20] It is a well-established principle of best regulatory practice that significant changes to the regulatory framework require greater justification, given the importance of the stability, predictability and transparency of a regulatory regime. This has been recognised by the CMA/CC in a number of different contexts, such as *Phoenix Gas*, in which the CC found that "*any revision of previous regulatory determinations should be: well reasoned, properly signalled, […] clear and understood*" to ensure regulators' decisions do not *"lead to regulatory instability that will add to uncertainty in the industry".*[21] This principle was illustrated again in PR19, where the CMA stressed the need to provide "*enough evidence*" to justify a novel regulatory tool that constituted a "*significant break from a well-established regulatory approach*".[22]

2.4 GEMA invokes historical outperformance to justify many of its flawed decisions

(14) GEMA repeatedly invokes alleged outperformance at RIIO-GD1 as an important factor in supporting its decision to adopt "*tough challenges*".[23] This is relevant not only in the purported justification of the introduction of the novel OW,[24] but also in seeking to justify an OE target[25] above relevant precedents.

[15] NoA, para. 300.

[16] NoA, para. 318(ii).

[17] Finance Response, para. 341.

[18] NoA, para. 251.

[19] *NPG Determination*, para. 4.101 (emphasis added) (NGNNOA1_194).

[20] Finance Response, para. 341.

[21] *Phoenix Gas,* paras. 32 and 9.112 (NGNNOA1_192).

[22] PR19 Final Report, para. 9.1223 (NGNPR19_001).

[23] FD GD Annex (revised), para. 3.32 (NGNNOA1_168).

[24] See e.g. Finance Response, paras. 283, 310.

[25] See e.g. Totex Response, paras. 8(2), 139-142.

(15) As explained in paragraph (112), however, alleged outperformance at RIIO-GD1 is not to be equated with future outperformance at RIIO-GD2. RIIO-GD2 is a materially different price control and GEMA has made a number of significant changes to the regulatory framework to address perceived sources of outperformance at RIIO-GD1 (e.g. in relation to RPEs). This was recognised at PR19, where the CMA clearly recognised that it was *"not persuaded it is consistent for Ofwat to both set new and increasingly stretching targets […] and also to assume that companies will outperform against those targets*".[26]

2.5 GEMA cherry-picks evidence from PR19 and other CMA precedent in an inconsistent fashion

(16) As explained in the PR19 Submission, the Appellant submits that the PR19 FD is supportive of the grounds of appeal set out in the NoA.[27] While GEMA's Response seeks to downplay the relevance of PR19 by pointing to differences in the appeal framework between energy and water sector appeals, it simultaneously cherry-picks regulatory precedent (in particular from the PR19 FD) in a selective manner.

(17) In relation to CoE, GEMA claims that the CMA's decision in PR19 is of no relevance and does not undermine GEMA's approach because GEMA is entitled to arrive at a different view based on its regulatory discretion.[28] For example:

(i) on <u>RFR</u>, GEMA claims that its decision to prefer the use of ILGs "*rather than simply following the CMA's approach in the PR19 PFs, was a reasonable and lawful exercise of regulatory judgement*";[29]

(ii) on <u>TMR</u>, GEMA claims that there are "*important differences between the CMA's role in PR19 and its appellate role*" and the "*Appellants are wrong to suggest that, because the CMA provisionally decided to take into account RPI inflation data as well as the CPI data series, and set a 'slightly' higher TMR range for the purposes of PR19 than GEMA has set, GEMA's decision in RIIO-2 is necessarily flawed*";[30] and

(iii) on '<u>aiming up</u>', GEMA argues that "*the CMA's preference for 'aiming up' in PR19 (where it was required to reach a re-determination of the water price control settlement) [should not] inform its approach to this appeal*".[31]

(18) However, GEMA then seeks to rely on PR19 and other CMA precedent (such as the *NATS Final Report*) to support its arguments about the validity of its decisions. For example:

(i) on RFR, GEMA refers to "*more recent regulatory precedent, e.g. in the NATS decision, where the CMA relied solely on ILGs with no adjustment*" in support of its decision to prefer the use of ILGs;[32]

(ii) on TMR, GEMA argues its "*mid-point of 6.5% is identical to the CMA's decision in NATS and where GEMA's range overlaps considerably with the CMA's PR19 range*";[33] and

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26 PR19 Final Report, paras.4.493 and 9.1334(b) (NGNPR19_001). The CMA also noted that "*little or no weight*" should be placed on historic outperformance in setting the efficient cost benchmark (PR19 Final Report, para. 4.493).

27 PR19 Submission, para. 3.

28 Finance Response, paras. 44 to 47, 91.

29 Finance Response, para. 92.

30 Finance Response, para. 122.

31 Finance Response, para. 264.

32 Finance Response, paras. 75 to 77.

33 Finance Response, para. 123.

(iii) on 'aiming up' it claims that *"[o]ther regulators have also "aimed straight" or "aimed down" depending on the circumstances"*.[34] GEMA also relies on PR19 and NATS Final Report to defend its cross-checks for CoE.[35]

(19) Further, in relation to OE, GEMA cites the fact that the "*CMA set an OE challenge of 1.0% at PR19 notwithstanding that water companies had not received analogous funding in the past.*"[36] The Appellant submits that not only is this comparison flawed on its own terms (as explained in Section 5.1.2 below), but it is also inconsistent with GEMA's submission that there is "*no regulatory principle that 1.0% represents a hard ceiling on the permissible OE challenge. The specific circumstances of each price control must be considered.*"[37]

2.6 GEMA does not engage with substantial evidence submitted by the Appellant

(20) GEMA's Response fails to engage with evidence submitted by the Appellant in a number of areas, exemplified by the following:

(i) In relation to CoE, GEMA claims that it has placed "*limited weight*" on the evidence from European energy companies and National Grid's de-composition analysis but does not engage properly with arguments about the appropriateness of these comparators.[38] In fact, GEMA has not given any weight to such evidence and, instead, placed sole reliance on CEPA's assessment. Similarly, in response to its sole reliance on the CED/CPI dataset, GEMA claims that it *"had expressly stated that it wished to 'avoid over-reliance on any one measure' (…) and, to this end, it considered a number of deflation methods".* Even if GEMA had considered "*a number of deflation methods*"[39] it did not give any weight to them.

(ii) In relation to OW, GEMA has disregarded the fact that the idea of an OW was resoundingly rejected by the Earwaker/Fincham survey of 32 expert ex-regulators (a view consistent with respondents to the "*Investor views of risk for Gas Distribution Networks under RIIO-GD2*" survey submitted to GEMA in September 2020).[40]

(iii) In relation to OE, GEMA fails to engage with the Appellant's submissions that the assumptions made by CEPA in quantifying the 0.2% innovation uplift are manifestly flawed (and that equally plausible assumptions could yield radically different results) or that the innovation uplift will have adverse incentive properties.

(21) Finally, GEMA seeks to mischaracterise the RIIO-GD2 engagement process in a number of key areas. For example, in relation to OW, the Response claims that: (i) in the framework decision most stakeholders did not comment on the proposal to distinguish allowed and expected returns; and (ii) GEMA's evidential basis is "*substantially unchallenged*".[41] Both contentions are manifestly false. First, the Appellant challenged this at every stage of the RIIO-GD2 process.[42] Second, the Appellant (the ENA and other appellants) have consistently challenged GEMA's evidence base – both empirically and conceptually.

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[34] Finance Response, para. 262.

[35] PR19 Final Report (NGNPR19_001) and NATS Final Report (NGNNOA1_223). See Finance Response, paras. 198 to 199.

[36] Totex Response, para. 144(2).

[37] Totex Response, para. 144(1). GEMA further notes in para. 144(2) that "*In GEMA's judgment, the particular circumstances of RIIO-2 justified a stretching OE challenge above that set by other regulators in different contexts*."

[38] Finance Response, paras. 160 to 161.

[39] Finance Response, para. 124.

[40] Earwaker and Fincham Report (NGNNOA1_134); ENA investor views of risk survey, p.3 (NGNREP1_012).

[41] Finance Response, paras. 290 and 342.

[42] Including in NGN Framework Consultation Response, p. 28 (NGNNOA1_109); NGN SSMC Response (Q&A), p. 56 (NGNNOA1_111); and DD Core Response (NGNNOA1_113).

2.7 NGN's grounds of appeal clearly identify material errors

(22) GEMA's Response argues that the Appellant's claimed errors in relation to CoE are not material. It is submitted that each of these errors are material. As described in the NoA, the materiality of an error is to be assessed by reference to several factors, including whether it produces a material effect on the price control that is above 0.1%. Each of the errors relating to the individual CAPM CoE parameters individually exceed the 0.1% threshold.[43]

(23) Moreover, the 0.1% is not a "*bright-line test*", rather it is "*one factor in an overall assessment based on all the circumstances of the case*",[44] and the CMA has made clear that materiality is a broader concept than size alone (and encompasses a consideration of regulatory precedent value).[45] The errors in relation to CoE identified by the Appellant relate to broader economic regulatory principles, that are likely to have a considerable effect on future price controls and are, accordingly, material. It is also clear that the factors previously considered are "*not intended to be exhaustive*".[46] Consequently, the Appellant respectfully submits that an appropriate assessment of materiality should also include other factors such as the short- and long-term impact on customer value.

(24) The Response implies that the Appellant should be precluded from advancing a series of *de minimis* individual errors "*which were alleged in the aggregate to have a material effect*".[47] Each of the individual errors identified by the Appellant is material in and of itself (as explained above). Without prejudice to this primary contention, the Appellant submits that the CMA can also aggregate individual errors to assess their materiality on a collective basis, should it deem such aggregation necessary. The CMA held in *Firmus* that the CC "*<u>did not rule out the possibility</u> that there may be cases in which such aggregation was justifiable where the cumulative effect of discrete errors had a highly significant impact on the price control set by the regulator*".[48]

2.8 GEMA's position on interlinkages

(25) GEMA's Response appears to suggest that any aspect of its price control can be interlinked,[49] but it fails to specifically identify those interlinkages and seeks to defer any discussion on interlinkages until after provisional determinations.[50] Furthermore, GEMA suggests, both in its Response[51] and the letter from Hogan Lovells to the CMA of 19 April 2021,[52] that it is entitled to launch a licence modification process outside the CMA appeal to implement any changes required to address interlinkages which are not addressed by the CMA. The Appellant submits that this position is untenable.

(26) <u>First</u>, if GEMA wants to rely on interlinkages, it has to identify these clearly and show that without these interlinkages a decision could not stand on its own. The Response fails adequately to identify any such interlinkages in sufficient detail for the appellants to be able to make representations on their appropriateness or for the CMA to assess them. The CMA has already rejected the argument

[43] NoA, paras. 131 to 135.

[44] *BT,* para. 2.35 (NGNNOA1_204); *Firmus*, para. 3.24 (NGNNOA1_206); *CityFibre,* para. 2.28 (NGNNOA1_207).

[45] CMA Clarification of position on potential energy licence modification appeals, para. 3 (NGNNOA1_214).

[46] *Firmus*, para. 3.25 (NGNNOA1_206), *NPG Determination*, para. 3.58 (NGNNOA1_194), *BGT Determination* para. 3.61 (NGNNOA1_191).

[47] Finance Response, para. 50.

[48] *Firmus*, para. 3.26(b) (NGNNOA1_206) (emphasis added).

[49] See e.g. First Witness Statement of Akshay Kaul (AK1), paras. 103 to 121; First Witness Statement of Simon Wilde (SW1), paras. 204 to 211; and First Witness Statement of Michael Wagner (MW1), paras. 70 to 74.

[50] See e.g. Finance Response, para. 5.

[51] First Witness Statement of Akshay Kaul (AK1), para. 106.

[52] GEMA's letter to the CMA of 19 April 2021 (NGNREP1_002).

that it was required to review price controls "*in the round*" or on a "*global basis*"[53] and stressed that the regulator needs to "*explain these interlinkages, and the reasons for them, in their decision documentation*."[54]

(27) Second, GEMA notes that for the totex modelling all GDNs have appealed some aspects of their totex allowance and suggests that the comparative nature of such modelling means that "*any change in the treatment of costs within the model would change the modelling outcome for all GDNs, and thus their allowances*".[55] GEMA further notes that *"changes to just one GDN's costs (e.g. excluding various rechargeable LTS Diversions costs forecast by Cadent from the model– see its Ground 1A) will affect the efficiency scores of all GDNs. GEMA considers that hypothetical discussion of various possible interlinkages would, at this stage, be unmanageable and disproportionate".*[56] GEMA's implied position that changes to totex modelling arising from one appeal should affect other appeals is inconsistent with the CMA's position that relief relating to one appeal is only relevant to the appellant in that appeal.[57]

(28) Third, the suggestion that GEMA can circumvent the CMA appeal framework by embarking on a post-appeal licence modification to address any potential interlinkages is concerning and not in keeping with best regulatory practice. If the CMA has decided no such interlinkages exist, it would be wholly inappropriate for the regulator to change unchallenged aspects of the FD regarding the Appellant via this route. Moreover, GEMA's position on interlinkages effectively undermines the change in the energy appeals framework introduced in 2011[58] which enabled licensees to challenge certain aspects of the price control without the need to undergo a full redetermination.

3 Cost of Equity

(29) GEMA states that there is no "*perfect*"[59] evidence or basis on which to estimate the CAPM CoE, inviting the CMA to consider all of its decisions as within the bounds of regulatory judgement and dismiss the Appellant's claim on that basis. As noted in Section 2.1, there are limits to regulatory judgement. In the particular case of the CoE, GEMA has repeatedly chosen estimates which are at the lower end or below those suggested by the proper approach to estimation, and a point estimate which is lower than the academic and regulatory evidence can support. This is inconsistent with GEMA's principal objective and statutory duties, best regulatory practice and well-established precedent.[60]

(30) The Response sets out a selective and misplaced description of the evidence in relation to the individual CoE parameters, and relies extensively on flawed cross-checks that are inadequate to justify precise CoE numbers. Overall, it is striking that GEMA's CoE estimate is materially below the CoE estimate that the CMA arrived at in PR19, despite the fact that gas distribution networks face substantially higher risk and uncertainty than the water sector.[61] There is, in summary, nothing in the Response which negates the errors put forward by the Appellant in relation to CoE.

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53 *NPG Determination*, para. 3.49 (NGNNOA1_194); *BGT Determination,* para. 3.50 (NGNNOA1_191); CMA Clarification of position on potential energy licence modification appeals, para. 16 (NGNNOA1_214).

54 CMA Clarification of position on potential energy licence modification appeals, para. 14 (NGNNOA1_214).

55 First Witness Statement of Akshay Kaul (AK1), para. 110.

56 Totex Response, para. 6. (emphasis added).

57 CMA's letter of 20 April 2021 (NGNREP1_003).

58 Via the Electricity and Gas (Internal Markets) Regulations 2011, which implemented certain requirements of the EU Third Energy Package.

59 Finance Response, para. 60.

60 See for example NoA, paras. 146 to 148.

61 PR19 Submission, para. 7.

(31) This section should be read together with the Second Cost of Equity Report (Exhibit KPMG_COE2_1), Beta Report (Exhibit KPMG_BETA1_1) and MARS Report (Exhibit KPMG_MARS1_1).

3.1 RFR

(32) In response to the Appellant's submission that GEMA inappropriately disregarded instruments other than ILGs, GEMA claims that ILGs represent the closest proxy for the RFR,[62] and:

(i) denies that the application of the CAPM requires all participants to be able to issue debt at the estimated RFR, and maintains that investors in energy companies are net lenders, for whom ILGs are appropriate;[63]

(ii) rejects the use of AAA-corporate bonds ("AAAs") and claims that ILGs are simpler because they avoid the need for adjustments to observed yields, which "is preferable when indexing";[64] and

(iii) maintains that the decision to use ILGs was not wrong, despite the difference in approach of the CMA in PR19, suggesting it was consistent with earlier decisions in the energy sector,[65] and that nominal gilt and SONIA cross checks supported its conclusion.[66]

(33) As to these points, the Appellant responds as follows.

(34) First, GEMA's argument that investors in energy companies are net lenders as a basis for ignoring AAAs is inconsistent with the fundamental principles of the CAPM model. As set out in the Cost of Equity Report,[67] what matters for the RFR is the marginal investor across the market, not within regulated utilities. GEMA's continued recourse to this argument represents a fundamental failure to understand the basic principles of the CAPM and to engage with the Appellant's submissions.

(35) Second, it is common ground between GEMA and the Appellant that both ILGs and AAAs contain distortions. However, GEMA is wrong to claim that ILGs represent the closest proxy to the RFR, and its argument that both indices contain distortions is not a basis on which to rely solely on ILGs. As explained in the NoA,[68] and accepted by the CMA in PR19,[69] ILGs will lie below the true RFR, while AAAs will lie above it. The appropriate response to this is to place some weight on both measures, as the CMA did in PR19.[70] GEMA's decision to do otherwise is wrong, selective and undeniably biases the RFR downwards. Such a decision is not within the bounds of regulatory discretion. GEMA notes that the use of AAAs was raised by companies only at the DD stage.[71] This is an irrelevant consideration, as the purpose of the DD is precisely to consult and responses to such consultation are within scope for GEMA to take into account.

(36) GEMA's claim that ILGs should be the sole basis for the RFR because they are simpler, whereas AAAs require more adjustments, is not robust.[72] The Appellant submits that the inclusion of AAAs in the RFR index is simple to implement and in any case ILGs themselves suffer from distortions and require adjustments (e.g. to control for the convenience premium (contrary to GEMA's

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62 Finance Response, para. 73.

63 Finance Response, paras. 79 to 81.

64 Finance Response, paras. 83 to 86.

65 Finance Response, paras. 89 and 92.

66 Finance Response, paras. 93 to 99.

67 Cost of Equity Report, paras. 6.3.26 to 6.3.28, exhibited at (KPMG_COE1_1).

68 NoA, para. 168(iv).

69 PR19 Final Report, paras. 9.115, 9.235 and 9.239 (NGNPR19_001).

70 PR19 Final Report, para. 9.265 (NGNPR19_001).

71 Finance Response, para. 66.

72 Finance Response, para. 76.

suggestion)). Moreover, GEMA has experience in averaging two indices as part of an indexation mechanism through its approach to cost of debt in RIIO-GD1 and there is no reason why that approach could not be implemented in RIIO-GD2.

(37) Third, as regards the RFR, GEMA's argument that the CMA's PR19 decision is in a *"different sector"*[73] should carry no weight, since the RFR is a parameter that does not vary by sector. The CMA's decision is relevant, not least to provide a benchmark for what is a reasonable and logical approach to take based on the evidence. Equally, GEMA's argument that the most relevant precedents for its decision in RIIO-GD2 are other decisions under the GA 1986 and/or EA 1989[74] is also misplaced. As set out in the Cost of Equity Report,[75] unadjusted, spot rate ILGs were used for the first time following the UKRN study, and so were not used in previous decisions by GEMA. In fact, in the past, observed ILG yields have been used with upwards adjustment, contrary to GEMA's approach. As such, the CMA's decision in PR19 is the most relevant precedent for whether the use of spot rate ILGs is appropriate.[76] For the same reasons, GEMA's contention that "*there is long regulatory precedent for using ILGs*"[77] is highly misleading – prior to the UKRN study,[78] ILGs were used with adjustments, and so there is no regulatory precedent for using unadjusted ILGs as GEMA has done.

3.2 Beta

(38) In its NoA, the Appellant refers to a number of errors in GEMA's approach to beta estimation, relating to: (i) GEMA's selective use of beta comparators and failure to adequately consider the systematic profile of GDNs;[79] and (ii) GEMA's flawed statistical methodology, including in relation to the inclusion of the Covid-19 period.[80]

(39) In relation to its selection of beta comparators, in its Response, GEMA:

(i) claims that arguments about weight on water company betas have no material impact if the CMA accepts that GEMA was right to place greater weight on beta observations of large samples, since the NG 10-year beta is consistent with GEMA's 0.311 unlevered beta point estimate;[81]

(ii) argues that decomposition of the NG beta into a UK constituent beta requires a large number of judgements limiting its evidential value, and that decomposition analysis by Frontier and CEPA suggests that the beta of NG's UK business is sometimes higher and sometimes lower than that of the US business;[82]

(iii) claims that it was justified in not placing weight on European energy comparators, given multiple types of risk might be expected to differ between the UK and European jurisdictions, and that observations from European energy networks support an unlevered beta either above or below GEMA's 0.311 point estimate (under CEPA's comparator selection);[83] and

73 Finance Response, para. 90.

74 Finance Response, para. 92.

75 Cost of Equity Report, paras. 6.3.14 to 6.3.18, exhibited at (KPMG_COE1_1).

76 Second Cost of Equity Report, section 5.1, exhibited at (KPMG_COE2_1).

77 Finance Response, para. 79.

78 UKRN Study (NGNNOA1_183).

79 NoA, para. 182.

80 NoA, para. 186(i).

81 Finance Response, paras. 157 to 159.

82 Finance Response, para. 161.

83 Finance Response, para. 160.

(iv) argues that evidence of the relative systematic risk of gas and electricity networks is inconclusive, and that GDN-specific risk is captured by the NG 10-year beta, as it incorporates risks associated with NG's gas transmission and distribution business. GEMA also states that the evidence presented by the Appellant regarding Spanish and Italian betas would not have had a material impact on its assessment.[84]

(40) The Appellant disagrees that GEMA's 0.311 unlevered beta equates to a fair reading of the NG beta: this is only in line with GEMA's 10-year NG beta where market value of debt is used,[85] which is a methodological point of difference between KPMG and GEMA.[86] GEMA's focus on the NG 10-year beta is selective, selecting the lowest NG beta estimate from the range of different estimation windows. GEMA's response hinges in a number of places on its preference for the longest estimation period. As set out in the Second Cost of Equity Report, if GEMA has a preference for longer estimation windows, there is no reason or explanation as to why a 10-year estimation window is preferable to a longer one (for example, estimating NG's beta using the full period of available data back to privatisation).[87] Analysis in the Cost of Equity Report shows that the full run of data for NG supports an asset beta of 0.40 (using a 0.075 debt beta), which is materially above GEMA's estimate.[88] Additionally, GEMA's beta results include a number of water company beta estimates, which are significantly below the NG estimate. Even if GEMA's precise weighting is unclear, it is not credible for GEMA to state that the water company betas didn't drag down its beta point estimate.

(41) Moreover, as set out in the Cost of Equity Report,[89] evidence provided by the NG decomposition analysis and from European comparators indicates betas materially higher than the NG 10-year beta. The selective and unjustified disregard of this evidence amounts to systematically underestimating the beta for a UK GDN.

(42) In relation to GEMA's arguments about GDN-specific risk, the NG 10-year beta fails to capture this risk, contrary to GEMA's assertion.[90] Risks specific to GDNs have increased and crystallised very recently as a result of the increased focus on decarbonisation.[91] Given that the NG 10-year beta does not include gas distribution for the more recent time period, this 10-year beta will not appropriately capture the risk profile of GDNs.

(43) This is highlighted by evidence of the divergence in beta estimates for Spanish and Italian gas versus electricity companies, as presented by the Appellant and its experts in the Cost of Equity Report.[92] GEMA refers to a number of factors that it suggests invalidates this evidence,[93] but has not robustly tested whether any of these actually explain the divergence in betas that is observed. The Second Cost of Equity Report tests each of the factors set out by GEMA, and demonstrates that none of these factors changes the underlying result.[94] The findings therefore remain consistent

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84 Finance Response, para. 164.

85 FD Finance Annex (revised) (NGNNOA1_167), Table 9 shows that GEMA's unlevered beta estimate is 0.311 and Table 10 shows the NG 10-year unlevered beta is 0.33 uisng book value of debt and 0.31 using market value of debt.

86 Second Cost of Equity Report, para. 4.2.7, exhibited at (KPMG_COE2_1).

87 Second Cost of Equity Report, para. 4.2.5, exhibited at (KPMG_COE2_1).

88 Cost of Equity Report, paras. 2.4.1, 8.5.7 and Table 1, exhibited at (KPMG_COE1_1).

89 Cost of Equity Report, paras. 2.3.18 and 8.5.7, exhibited at (KPMG_COE1_1).

90 Second Cost of Equity Report, section 4.2, exhibited at (KPMG_COE2_1).

91 NoA, paras. 156 to 160. More recently, since submission of the NoA, Prime Minister Boris Johnson announced the world's most ambitious climate change target requiring emissions to be cut by 78% by 2035. This represents a step forward from the previous aim which was already one of the most ambitious plans among developed economies: see Government press release on emissions target (NGNREP1_004).

92 Cost of Equity Report, para. 7.4.57, exhibited at (KPMG_COE1_1).

93 Finance Response, para. 164.

94 Second Cost of Equity Report, section 4.1, exhibited at (KPMG_COE2_1).

with the hypothesis that gas networks are disproportionately affected by the economy-wide transition to Net Zero, which GEMA has failed to capture, resulting in an allowed return that is insufficient to remunerate GDN investors for the risks that they face.

(44) Overall, it is submitted that it is clear that GEMA's approach to comparator selection has materially understated the beta for GDNs. It is important to note that even what might appear as small differences in the beta estimate lead to significant swings in the overall CAPM CoE estimate, and as such avoiding any degree of downward bias by carefully selecting beta comparators is particularly important.

(45) The Appellant also notes that GEMA's approach to estimating beta continues to place weight on the COVID-19 period, inconsistent with the CMA's approach in PR19, as set out in the PR19 Submission.[95] It is notable that GEMA chose to discount evidence regarding European comparators on the basis that the betas appeared to be impacted by COVID-19,[96] yet was unwilling to exclude COVID-19 datapoints from its own beta estimates.[97]

(46) Additionally, analysis considering estimation methods for beta finds that OLS is the most robust method of estimating the unconditional beta.[98] For the reasons set out in the Beta Report,[99] Dr Donald Robertson's analysis which GEMA put forward as supportive of its assertion that "*OLS may overestimate the true beta*",[100] is flawed. OLS is a superior method for the purposes of estimating an unconditional beta in a regulatory setting since OLS is guaranteed to be a consistent estimator of unconditional beta, while GARCH is not.[101]

(47) That analysis finds that if structural breaks are to be disregarded, the most robust approach to estimating beta is to use the full set of data back to privatisation. For NG, this supports an asset beta of 0.40 (on a 0.075 debt beta basis).[102]

3.3 TMR

(48) In the Response, GEMA emphasises the role of regulatory judgement in the context of estimating TMR. GEMA cannot insulate its decision from challenge on the basis that its decisions on individual parameters are a matter of discretion. Indeed, if GEMA's stated margin of appreciation would allow it to take into account (or ignore) any piece of evidence, regardless of its credibility or strength, any TMR estimate within a wide range (c. 2.5% - 7.5%) of real-CPIH would be unappealable.[103]

(49) GEMA further claims to have adopted a cautious approach to estimating TMR, by choosing an estimate towards the upper end of the evidence it considered and referencing in particular submissions from investment managers.[104] However, such a claim is highly misleading, and relies on comparing GEMA's approach to only a particular sub-set of approaches that GEMA has chosen to present. GEMA does not include results from alternative approaches, such as the DMS decomposition analysis, which indicates materially higher numbers. In addition, such comparisons need to be interpreted with caution as the different approaches GEMA references are not equally

95 PR19 Submission, para. 14.

96 Finance Response, para. 164; First Witness Statement of PJ McCloskey (PJM1), para. 298.

97 Finance Response, para. 170.

98 Cost of Equity Report, paras. 8.3.22 to 8.3.23, exhibited at (KPMG_COE_1) referring to Prof Alan Gregory et al (April 2020), p.11, exhibited at (KPMG_COE1_2_058).

99 Beta Report; (Exhibit KPMG_BETA1_1).

100 Finance Response, para. 144.

101 Second Cost of Equity Report, para. 4.2.9, exhibited at (KPMG_COE2_1).

102 Cost of Equity Report, para. 7.4.39, exhibited at (KPMG_COE1_1); Second Cost of Equity Report, para. 4.2.5, exhibited at (KPMG_COE2_1).

103 First Witness Statement of PJ McCloskey (PJM1), Figure 24, p. 118.

104 Finance Response, para. 113.

robust, and GEMA makes no reference to the robustness of the outlier evidence of investment managers, even though GEMA later describes these as "*subjective*" and therefore of "*limited weight*".[105] GEMA also claims that the CMA's *ex ante* historical analysis supports its TMR estimate.

(50) The Appellant submits that the focus should be on the historical *ex post* approach, consistent with GEMA's own position in the FD. Under this approach – far from being cautious – GEMA's estimate of TMR is (as set out in the NoA) downwardly skewed, through its approach to both inflation and averaging.[106]

(51) In relation to inflation, the Appellant accepts that there is no perfect data series and agrees that both CED/RPI and CED/CPI series have flaws. However, as explained in detail in the NoA,[107] GEMA was wrong to place sole reliance on the CED/CPI series in spite of these flaws. The Appellant's position, which is supported by the CMA's approach in PR19, was that a balanced assessment would have placed weight on CED/RPI (whose alleged flaws make it no more problematic than CED/CPI) series. To do otherwise, downwardly skews GEMA'S estimate of TMR in an inappropriate way.

(52) GEMA is incorrect to claim that the Appellants make an additional (unarticulated) leap from the CED/RPI historical data series to RPI reflecting investors' current expectations for future inflation, and that only when backwards-looking CED/RPI and forwards-looking RPI data are combined is a higher TMR achieved. As set out in the Cost of Equity Report, the choice of historical inflation series is about which is the more/most reliable measure of inflation to adjust historical returns. GEMA has incorrectly conflated these two points, and has dismissed RPI in its entirety because of concerns of its use on a forward-looking basis. This is incorrect, as RPI is a relevant series to be included in consideration of historical inflation.[108] Even if GEMA considered that, on a forwards-looking basis, RPI required adjustment (which the Appellant does not accept), this does not mean that no weight should be placed on RPI. As the CMA precedent shows, differences between forward-looking and historical RPI inflation are not sufficient to reject the use of the CED/RPI in its entirety.[109]

(53) In relation to the Appellant's challenge on averaging, GEMA is wrong to suggest that most investors focus on geometric return over the investment horizon. As explained in the Cost of Equity Report,[110] there is a range of results from the academic literature which shows that the geometric return is a downwardly-biased measure of the expected return. Indeed, well-known academic results also show that the arithmetic return is not upwardly-biased if the expected return is measured from the perspective of the 'discounter' (as opposed to the 'compounder'). These points are supported by PR19.[111]

(54) GEMA's claim that "*adopting alternative averaging methods instead would have had no material impact on GEMA's decision*" is incorrect. Similarly, referencing the *CMA's PR19 Provisional Findings* in this regard, is highly selective.[112] The CMA's PR19 FD (and *PR19 Provisional Findings*) clearly show that the large majority of averaging methods yield higher estimates of TMR than GEMA's.[113] As set out in the Second Cost of Equity Report,[114] in fact, GEMA's midpoint of 6.5%

[105] Finance Response, para. 138.

[106] NoA, para. 148.

[107] NoA, paras. 197 to 199.

[108] Cost of Equity Report, para. 5.4.26, exhibited at (KPMG_COE1_1).

[109] PR Final Report, para. 9.301 (NGNPR19_001).

[110] Cost of Equity Report, paras. 5.4.58 to 5.4.62, exhibited at (KPMG_COE1_1).

[111] PR19 Final Report, paras. 9.328 to 9.329 (NGNPR19_001).

[112] Finance Response, para. 131.

[113] PR19 Final Report, paras. 9.331 to 9.332 (NGNPR19_001); CMA's PR19 Provisional Findings, paras. 9.181 to 9.184 (NGNNOA1_186).

[114] Second Cost of Equity Report, para. 3.1.5, exhibited at (KPMG_COE2_1).

real-CPIH is below nine of the 10 estimates at holding periods between 10 and 20 years presented in the *CMA's PR19 Provisional Findings* by up to 0.7 percentage points,[115] and is below all four of the CMA's estimates at holding periods of between 10 and 20 years, presented in its PR19 FD, by over 0.6 percentage points.[116]

(55) GEMA claims that its uplift from the geometric average is 1.3% to 1.5%. As set out in the Second Cost of Equity Report, this appears to be incorrect.[117] Rather, GEMA's uplift appears to be only 1.26% under its approach to historical inflation. While GEMA claims that its uplift does not hinge on the erroneous PwC study that it cited,[118] the PwC study was referred to alongside scant other evidence to justify such a low uplift.

3.4 Aiming-up / selecting a point estimate

(56) As set out in the Appellant's NoA, in a departure from regulatory precedent, GEMA has rejected the principle of "aiming up" and as such has failed to account for uncertainty and for the asymmetric risks facing GDNs.[119]

(57) GEMA makes a number of points in response to this claim, none of which negates the clear error GEMA has made in failing to aim up.

3.4.1 Aiming up for uncertainty

(58) In relation to aiming up for uncertainty, GEMA claims that:[120]

(i) it is not convinced that setting a CoE that is too low creates a significant risk of underinvestment;

(ii) in any case it has a high degree of confidence that its CoE estimate is not too low;

(iii) indexing the RFR gave it confidence that the CoE allowance will not fall out of line with the true CoE over the course of RIIO-GD2;

(iv) if the CoE allowance did fall out of line with the true CoE, GEMA would expect to see this in the market value of networks, which may be adjusted in future price controls and *in extremis* lead to adjustments to allowed returns in RIIO-GD2; and

(v) multiple other aspects of the RIIO-GD2 settlement provide strong incentives for investment, and other aspects could be deployed to increase allowances to support strategic investment or innovation.

(59) It is submitted that none of these points is a valid defence of GEMA's failure to aim up for uncertainty.

(60) First, GEMA in a number of places is seeking to argue against aiming up by claiming that the level of the CoE is not that important for incentivising investment. This is a bizarre claim, plainly incorrect, and is based on fundamentally flawed reasoning. For example, GEMA claims that the link between too low a CoE and underinvestment is thrown into doubt because GEMA did not see overinvestment in RIIO-GD1 (where it claims the CoE was set too high). The link between the CoE being set too low and risk of underinvestment is a well-established relationship. In addition, there are factors which mean the inverse relationship is more complicated. GEMA's reasoning ignores other key

[115] *CMA's PR19 Provisional Findings*, Table 9-3 converted into CPIH terms using a 90bp RPI-CPIH wedge (NGNNOA1_186).

[116] PR19 Final Report, Table 9-3 converted into CPIH terms using a 90bp RPI-CPIH wedge (NGNPR19_001).

[117] Second Cost of Equity Report, section 3.1, exhibited at (KPMG_COE2_1).

[118] Finance Response, para. 130; PWC H7 Response for the CAA (NGNNOA1_184).

[119] NoA, paras. 41 to 42.

[120] Finance Response, para. 257.

features of the price control, such as the Totex Incentive Mechanism ("**TIM**") and other regulatory mechanisms (e.g. NOMS, RIIO-GD1 close-out process), which act as a strong disincentive to overinvest.

(61) GEMA has ignored this well-established incentive property of setting the CoE too low and ignored the highly detrimental impact this will have on consumers.[121] This impact on consumers was recognised by the CMA in its PR19 FD.[122]

(62) Second, it is difficult to square GEMA's claim that it has a high degree of confidence that its CoE estimate is not too low with its statements in numerous other places in its Response that estimating the CoE is subject to significant uncertainty with numerous different possible approaches.[123] GEMA appeals to its cross-checks to support this assertion, but GEMA fails to recognise the deficiencies in these cross-checks, and has disregarded other cross-checks which support a higher CoE as set out in the Cost of Equity Report;[124] for example ARP-DRP analysis done by Oxera indicates a mid-point CoE estimate of 6.35% (CPIH-real).[125] The MARS Report sets out why MARs in particular are not informative for the assessment of the CoE.[126] Any set of cross-checks does not have sufficient accuracy to allow for anything other than checking whether or not the CoE lies within the extremes of relevant possibilities. Using such cross-checks to justify confidence in relatively small adjustments to the CoE not being warranted is simply not credible. Furthermore, the lack of direct comparators for energy companies' beta (unlike water companies), and the significant impact that even small errors in beta can make on the estimated CoE, indicates that it is just not credible to suggest that GEMA's CoE estimate is subject to limited uncertainty.

(63) Third, GEMA's suggestion is incorrect. Indexation of the RFR does not correct for the problem that GEMA's use of ILGs will systematically underestimate the RFR, regardless of whether this is then indexed over time. Furthermore, indexation of the RFR does not deal with the errors that have led to underestimating all of the other CoE parameters.

(64) Fourth, GEMA's suggestion is not credible. GDNs are not listed so it is not clear how the market value of GDNs will be observed. Even if it were, and this led to a correction of the CoE in the next price control, this would come at the cost of underinvestment in the intervening period – a period that is crucial to realise the Net Zero agenda. Investors can have no certainty that the CoE would in any case be corrected at the next price control.

(65) Fifth, GEMA again appears to suggest that setting an appropriate CoE is not important for achieving investment. This is at odds with the fundamental principles of corporate finance.

(66) GEMA therefore has no sustainable answer to its failure to aim up for uncertainty.

3.4.2 Aiming up for asymmetry

(67) GEMA agrees with the Appellants that the presence of material net asymmetric risk in a price control settlement – including that arising from possible asset stranding – would warrant a degree of aiming up.[127]

(68) However, GEMA argues that this is not needed in relation to asset-stranding, as this can be managed by companies seeking increases in capital depreciation allowances for RIIO-GD2.[128]

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121 NoA, para. 147(iii).

122 PR19 Final Report, para. 9.1273 (NGNPR19_001).

123 See for example, Finance Response, paras. 59, 85, 113, 123.

124 Cost of Equity Report, paras. 11.4.1 to 11.4.8, exhibited at (KPMG_COE1_1).

125 Oxera Asset and Debt Risk Premium Report, p. 4 (NGNNOA1_139).

126 MARS Report, exhibited at (KPMG_MARS1_1).

127 Finance Response, para. 269.

128 Finance Response, para. 272.

GEMA also suggests that environmental, social, and governance ("**ESG**") factors could positively contribute to the availability of funding and CoE for network companies.[129]

(69) In terms of the risk of asset stranding, GEMA misunderstands the nature of the adjustment for aiming-up for asymmetry, and the risk of Net Zero in particular. Simply accelerating depreciation of the asset base today would be to recognise that a reduction in value *has already occurred*. It is not a realised loss today that investors are concerned about, but the *potential loss* due to the UK's transition to Net Zero, which would be unrecoverable under the accelerated depreciation mechanism as a result of an implied infeasible hike in prices, to which investors attribute a non-zero probability. Investors require an 'insurance premium' to accept this risk on an expected basis, unless GEMA is able to demonstrate that it will safeguard investors' assets with sufficient guarantee.

(70) GEMA and Mr Wilde's submission that ESG factors could reduce the CoE is not consistent with a balanced review of the literature.[130] Even if ESG factors could lead to a discount to the CoE (which the Appellant does not accept), it is not clear that investment in gas networks would be considered ESG-compliant, as evidenced by the ongoing EU debate on the labelling system for energy investments.[131]

(71) The net asymmetric risk from asset stranding – as well as the asymmetric nature of the price control, whereby assuming neutral totex leads to a forecast of material underperformance over RIIO-GD2 (as per paragraph (86) below) – should have led GEMA to an additional degree of aiming up, as set out in the Cost of Equity report.[132]

3.5 Summary

(72) Despite GEMA's arguments to the contrary, GEMA's decision as regards CoE is wrong because, throughout its assessment, for every parameter, GEMA has chosen estimates that are consistently and systematically at the lower end or below those suggested by the proper approaches to estimation. Within these already downwardly skewed ranges, GEMA has also chosen not to 'aim up' despite the weight of academic thought, empirical evidence and regulatory precedent which unequivocally support selecting a point estimate for CoE above the middle of the range to prevent exit of capital over time by long-term investors in the sector, underinvestment in new assets and the consequent loss in consumer welfare that follows.

(73) As a consequence, the allowed CoE sits outside of the bounds of reasonable regulatory judgement.

4 Outperformance Wedge

(74) GEMA's Response seeks to frame the Appellant's ground of appeal related to the OW as simply *"a dispute about a limited category of evidence"*, namely evidence of historical outperformance of regulated companies across price controls, across sectors and over time.[133] It argues that the unprecedented introduction of the OW is within the scope of regulatory discretionary judgement, although "*reasonable people may disagree*".[134]

[129] First witness statement of Simon Wilde (SW1), para. 136.

[130] For example, Gregory, Tharyan and Whittaker (2014) (NGNREP1_005) and Gregory, Whittaker and Yan (2016) (NGNREP1_006) find that any valuation premium is driven by earnings growth, rather than an impact on the cost of capital. Moreover, to the extent there is a cost of capital effect, it would be limited to multi-factor models, rather than the single factor CAPM used by GEMA.

[131] FT article on green labelling (NGNREP1_007).

[132] Cost of Equity Report, para. 9.4, exhibited at (KPMG_COE1_1). See also Moody's Credit Opinion (2020) (KPMG_COE1_2_052).

[133] Finance Response, para. 283.

[134] Finance Response, para. 336.

(75) GEMA claims that other issues raised by appellants are a "*multitude of satellite issues*",[135] which the CMA does not need to resolve as they are "*complex but ultimately irrelevant*".[136] These contentions are wrong. It is well-established that GEMA must ensure that a specific adjustment it makes is well-evidenced, proportionate and targeted (consistent with principles of best regulatory practice). As detailed in the Appellant's NoA, the evidence that GEMA has relied on is deeply flawed. Furthermore, the OW is contrary to regulatory best practice and has material adverse impacts on incentives and regulatory risk which will ultimately result in detriment to consumers and which GEMA has not assessed. The rather disturbing fact that GEMA views these as "satellite" issues only serves to demonstrate GEMA's failure to take the perverse incentives of the OW seriously.[137]

(76) No other regulator (including the CMA in the PR19 FD) has applied an outperformance wedge, despite GEMA's contention that there is clear evidence of historic outperformance across sectors due to information asymmetry[138] inherent to regulatory price control processes. It is instructive that one of the authors of the UKRN study[139] – in which GEMA states its introduction of the OW is rooted[140] – has recently written a paper setting out serious concerns with the OW, which concludes "*the outperformance wedge reflects my worst fears of how the MPW recommendations could be turned into practice: it is bad incentive design that has not been properly evaluated by Ofgem and carries unintended or ignored adverse consequences for consumers*".[141]

(77) Nothing in GEMA's Response to the Appellant's NoA provides any sustainable good reason or excuse for the errors the Appellant has identified in relation to the OW.

(78) This section should be read together with the <u>MARS Report</u> (Exhibit KPMG_MARS1_1) and <u>Third Witness Statement of Ian Alexander</u> (IA3).

4.1 GEMA's evidence for the introduction of the Outperformance Wedge is flawed

(79) GEMA's Response provides no robust proof of expected outperformance in RIIO-GD2, relying instead on three flawed indicators.

(80) <u>First</u>, GEMA places significant weight on its historic database of outperformance which it claims shows "*a clear tendency towards underspending on totex.*" GEMA claims that this database has been subject to *"rigorous testing."*[142] A review of the final dataset exhibited to Mr. McCloskey's witness statement,[143] however, shows that it contains multiple errors. By way of examples:

(i) GEMA's dataset incorrectly shows significant outperformance for the GD PCR2002 control (showing that on average companies underspent their allowances by 35%). In fact, GEMA's model adds up five years of cost allowances and compares this to three years of actual expenditure – in the three years where both allowances and actuals are shown, companies actually overspent, rather than outperformed.

(ii) GEMA incorrectly omits the last year of the water PR14 price controls, inclusion of which shows that companies in fact overspent over the control period rather than outperforming as GEMA claims.

[135] Finance Response, para. 284.

[136] Finance Response, para. 284.

[137] NoA, para. 51(ii)(a).

[138] Finance Response, para. 350.

[139] UKRN Study (NGNNOA1_183).

[140] Finance Response, para. 287.

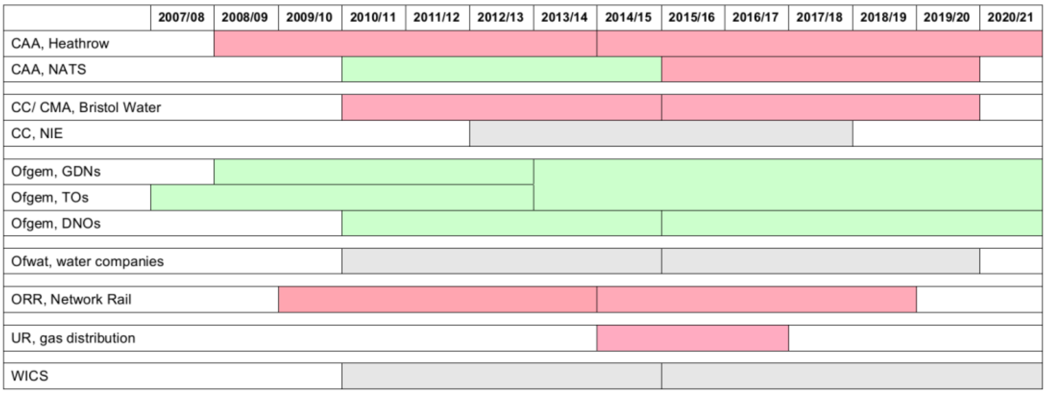
[141] Burns (2021) (NGNREP1_008).

[142] Finance Response, para. 310.

[143] AR-ER database CMA Final (PJ1/073).

(81) GEMA's Response further contends that the evidence supports systematic outperformance "*across price controls, across sectors, and over time*."[144] This is a fiction – the experience across multiple recent price controls in various sectors clearly shows that regulators can set well-calibrated price controls where incentives are balanced. As evidence for this, First Economics have recently published a review of out- and under-performance against price controls set by seven of the UK's regulators.[145] The results of this survey, which are reproduced below, show that there are more examples of underperformance than outperformance over the last 10-15 years of UK price regulation. It is highly doubtful that the CAA, Ofwat, ORR, the NI Utility Regulator, the Water Industry Commission or the CC/CMA teams that have set price controls in the past would recognise GEMA's conclusion regarding historical and expected outperformance – which perhaps explains why none has elected to apply an outperformance wedge in any of their recent price reviews.

Table 1: Out- and underperformance by regulator, sector/company and price control (2007-2021)



Key: green = overall out-performance of the regulator's assumptions; grey = overall performance broadly in line with the regulator's allowed return; red = overall under-performance against the regulator's assumptions

Source: First Economics Price Review, Table 1 (NGNREP1_009)

(82) Second, GEMA's historical analysis[146] is not reflective of the key changes to the RIIO-GD2 framework and cannot provide robust evidence that outperformance can be expected over RIIO-GD2. The analysis that GEMA has undertaken is incomplete: it does not adjust for very material changes which include, *inter alia*, a significant toughening of the totex allowance calculation methodology (removal of the RIIO-GD1 "interpolation" mechanism, setting an unprecedented efficient cost benchmark at the 85th percentile and setting far more stretching OE targets), a major expansion of PCDs and re-openers, a different set of ODIs with more limited upside potential and increased downside risk, and the revised rules around NARMs, which also limit the scope for outperformance. This fundamental challenge – which was highlighted to GEMA by the Appellant at DD stage[147] – is central to the conceptual justification for the inappropriateness of the OW, and is not, as GEMA claims, *"peripheral"*[148] or *"insubstantial"*.[149] As the CMA emphasised at PR19, it is inconsistent for "*Ofwat to both set new and increasingly stretching targets […] and also to assume that companies will outperform against those targets."*[150]

(83) GEMA acknowledges that new regulatory measures it has introduced in RIIO-GD2 reduce information asymmetry,[151] but has not tested the extent of information asymmetry that has been removed and what this implies for expected outperformance. GEMA claims to have controlled for

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[144] Finance Response, para. 283.

[145] First Economics Price Review (NGNREP1_009).

[146] Finance Response, para. 314.

[147] DD Core Response (NGNNOA1_113).

[148] Finance Response, para. 313.

[149] Finance Response, para. 313.

[150] PR19 Final Report, paras.4.493 and 9.1334(b) (NGNPR19_001).

[151] Finance Response, para. 32.1.

RIIO-GD2 parameters in the historical data, but the changes made are relatively minor adjustments, and with the exception of an RPE adjustment do not impact the core determinants of out- or under-performance.

(84) Critically, GEMA's adjustments do not take account of the following factors which will have a material impact on performance or information asymmetry:

(i) Business Plan Incentive and Price control deliverables (PCDs): GEMA concedes that both of these mechanisms might reduce information asymmetry, merely noting that *"some degree of information asymmetry is likely to continue"*.[152]

(i) Uncertainty mechanisms: GEMA does not respond to the evidence provided in the NoA that re-openers have historically resulted in a material downside for companies.

(ii) Benchmarking: GEMA simply states that changes to its benchmarking process might reduce some information asymmetry, but claims that they are *extremely unlikely to eliminate it*".[153] GEMA has provided no evidence to substantiate this claim.

(iii) Business plan scrutiny: GEMA states that "*business plans have always been extensively and rigorously tested and information asymmetry has never been eliminated completely*".[154] This ignores the additional scrutiny that has been applied in RIIO-GD2. It is also at odds with GEMA's argument that setting the cost benchmark at the 85th percentile is justifiable given material improvements in its data at RIIO-GD2 which "*materially improve transparency between the GDNs.*" GEMA emphasises that: "*GEMA asked over 1,000 questions on policy, engineering and costs aspects of GDN submissions. In doing so, it gathered significant further information and a better understanding of the GDNs' data*."[155]

(iv) Price control duration: GEMA concedes that a shorter price control is likely to "*reduce the impact of information asymmetry to some extent*",[156] but simply dismisses this on the basis that its historical dataset includes examples of five-year controls.

(v) Output delivery incentives: GEMA's statement that "*ODIs are intended to be broadly symmetrical*"[157] is at odds with the FD, where GEMA stated it had introduced a "*package of incentives to further improve the quality of service for consumers (worth –0.7% to +0.2% in rewards and penalties for electricity transmission, -0.7% to +0.3% in gas distribution, and –0.3% to +0.3% in gas transmission)*".[158]

(85) Given that none of these significant factors have been accounted for, it is doubtful whether the residual outperformance on RIIO-GD1 set out in paragraph 314 of the Finance Response would be positive, let alone in excess of GEMA's OW. The removal of the glidepath alone, leads to a 33 basis point reduction on the return on regulated equity. The corollary of GEMA's position appears to be that, regardless of how stretching a price control is, information asymmetry will always give rise to expected outperformance (e.g. even if the cost allowance was set 50% lower). This defies logic and is not consistent with analysis of outperformance in other price controls undertaken by First Economics (see paragraph (81) above).

(86) Forward-looking Monte Carlo analysis previously submitted by the Appellant showed that if neutral totex performance is assumed, then RIIO-GD2 is forecast to deliver material underperformance for

[152] Finance Response, para. 321.1.

[153] Finance Response, para. 321.3.

[154] Finance Response, para. 321.4.

[155] Totex Response, para. 276.

[156] Finance Response, para. 321.6.

[157] Finance Response, para. 321.7.

[158] FD Core (revised), p. 6 (NGNNOA1_166).

the notional GDN.[159] As set out in the Third Witness Statement of Mr Alexander, the Appellant has updated this analysis for the FD and material underperformance is still predicted.[160] As GEMA's argument for the OW relies on overall outperformance, totex outperformance must be substantial to outweigh underperformance elsewhere. For the reasons explained above, it is not credible to assume that this will be the case, and GEMA has certainly not assessed or demonstrated this.

(87) Third, GEMA cites anecdotal evidence purportedly showing ex ante expectations of outperformance during the RIIO-GD2 period. These vague and cherrypicked statements do not present compelling evidence of any systematic outperformance that GEMA claims. For instance, as explained in the Appellant's previous submissions,[161] the National Grid Investor Teach In presentation[162] cited noted that it was too early to tell what level of the outperformance would be and would merely target outperformance. This is not proof that National Grid (or any GDN) expected outperformance. Moreover, as corroborated by the CMA in PR19, seeking opportunities for outperformance should be encouraged.[163]

(88) Fourth, GEMA points to evidence from Market to Asset Ratios ("**MARs**") and the Western Power Distribution ("**WPD**") transaction. It is well-established, including by the CMA, that inferences from MARs are not generally reliable. More detail on the reasons for this, and why the WPD transaction does not support GEMA's case, is set out in the MARS Report which highlights that factors other than sector outperformance (or the true CoE being lower than the regulatory allowance) explain MARs.[164]

(89) Fifth, GEMA's Response states that the IQI led to a greater adjustment in allowed returns (at 0.35%) compared to the OW. This comparison is irrelevant at best and, at worst, misleading. The IQI was structured in a way to encourage business plans that would challenge the companies and allow them to benefit from that challenge. The additional income, which is what presumably is being referred to in para. 312 of the Finance Response, played an important role in this overall mechanism. At RIIO-GD2, this additional income has been replaced by the reward/penalty from the four stages of the BPI. No justification for the level of the OW can or should be drawn from this very different mechanism used at RIIO-GD1.

(90) In summary, GEMA's Response concludes that the "*evidential basis [for the OW] is substantially unchallenged*."[165] This surprising suggestion is plainly incorrect – the Appellant has demonstrated that GEMA's evidence is flawed empirically and is incapable of substantiating a conclusion that outperformance is expected or "probable"[166] at RIIO-GD2. Nothing in GEMA's Response invalidates the Appellant's claim that GEMA has failed to adequately evidence and justify the introduction of the OW to the requisite legal standard.[167]

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[159] Frontier Outperformance Wedge Potential Performance Report (NGNNOA1_137).

[160] IA3, section 3.

[161] Outperformance Wedge Report, paras. 3.5.3 to 3.5.5 (KPMG_OW1_1).

[162] National Grid UK Investor Teach-In, exhibited at (PJ1/033).

[163] PR19 Submission, section 3.

[164] MARS Report, Section 5 and Annex, exhibited at (KPMG_MARS1_1).

[165] Finance Response, para. 342.

[166] Finance Response, para. 312.

[167] NoA, para. 51(i).

4.2 The Outperformance Wedge will have damaging incentive properties

(91) The NoA submits that the OW has adverse incentive properties, which will lead to consumer detriment.[168] GEMA did not meaningfully assess these design flaws during the RIIO-GD2 process and its Response still fails to take the damage that this OW causes seriously.[169]

(92) First, the OW creates marginal disincentives to invest for companies that outperform by more than 25 basis points. The misalignment between the allowed return and the CoE was clearly explained in the Outperformance Wedge Report.[170] GEMA's Response is silent on this matter. Instead, GEMA refers to the WPD transaction, stating that "*the prospect of a possible outperformance adjustment in RIIO-ED2 evidently was not a deterrent to that transaction*".[171] As set out in paragraph (88), it is well-established that inferences from MARs are not generally reliable. Without prejudice to this primary contention, one transaction premium clearly cannot excuse a fundamental distortion to the marginal rewards for investment. GEMA's recourse to this transaction implies that it has still failed to understand this basic economic concept.

(93) PJ McCloskey's witness statement recognises that there is a detrimental impact on incentives for companies that do not expect to outperform.[172] Clearly, a price control which fails to incentivise investment among these companies is highly detrimental to consumers. Moreover, even for those companies that do outperform, the OW removes incentive to make certain investments, since the marginal return on these investments will be lower than GEMA's estimated CoE.

(94) Second, the OW also operates similarly to the well-known ratchet effect. GEMA argues that this is unpersuasive, as the "feedback loop" between information asymmetry is much weaker compared to, say, cost targets (in part because it is not licensee specific).[173] This is unsubstantiated.

(95) Moreover, the OW punishes any form of outperformance. It is notable that far from finding the parallel to the ratchet effect unpersuasive, Phil Burns emphasised the ratchet-effect like properties of the OW. In addition, as noted by Phil Burns, productivity would have to fall by only 3% as a result of this effect for consumers to be worse off in net terms.[174]

(96) Third, the Appellant highlighted the perverse incentive properties of the ex post adjustment mechanism introduced by GEMA, through the creation of a performance 'deadband' – an issue that GEMA appeared not to engage with during the RIIO-GD2 consultation process. Again, GEMA does not dispute that its policy creates a zone in which all of a licensee's normal efficiency incentives are effectively switched off. Its Response instead dismisses the point on the grounds that there is a relatively small (allegedly 7%) probability that companies will fall within this zone.[175] However, this assessment is based purely on the historical dataset, which, as set out above is irrelevant for the assessment of performance under RIIO-GD2. GEMA's Response seeks to provide a spurious sense of a robust empirical assessment, where none has been conducted.

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[168] NoA, section 3.2.

[169] Indeed, even GEMA's reference to the OW being a lump sum deduction in its Response betrays that it has not understood its incentive properties. The OW is not a lump sum deduction, it is a deduction instead to the allowed rate of return on equity, and it applies differently to different companies through the ex post adjustment mechanism. These properties matter for its incentive consequences.

[170] Outperformance Wedge Report, paras. 1.3.7 to 1.3.9, exhibited at (KPMG_OW1_1).

[171] Finance Response, para. 353.

[172] First Witness Statement of PJ McCloskey (PJM1), para. 190.

[173] Finance Response, para. 348.

[174] Burns (2021) (NGNREP1_008).

[175] Finance Response, para. 310.

(97) GEMA states that the perverse incentive properties of the ex post adjustment mechanism do not matter, since performance within that zone "*reflects asymmetry, rather than effort*."[176] This is an unsubstantiated claim. Even if GEMA had reliable evidence for expected outperformance (which it does not), there is no way to identify the causes. GEMA's cursory dismissal of the Appellant's criticisms of the incentive properties of the ex post adjustment mechanism is not based on analysis of the actual incentive effects and is in stark contrast to good regulatory practice – for example, in relation to regulators carefully considering the incentive effects of cost sharing rates.

(98) The Appellant further submits that GEMA's lack of rigorous cost benefit analysis in relation to the introduction of the OW is inconsistent with principles of best regulatory practice, particularly in relation to the damage that the OW and the associated *ex post* adjustment mechanism cause to normal regulatory economic incentives.[177] In response, GEMA highlights that it has "*considerable discretion as to how an impact assessment is carried out*".[178] This discretion does not, however, extend to failing to properly and robustly consider issues that are central to the question of whether GEMA's novel mechanism is proportionate, fulfils its stated purpose and is consistent with GEMA's statutory duty to promote efficiency and economy. The Appellant respectfully submits that the survey carried out by John Earwaker and Nick Fincham, provides compelling evidence that experienced economic regulators do not consider the OW to be an appropriate use of regulatory discretion.[179]

4.3 Summary

(99) GEMA's decision to impose the OW was founded on an incorrect premise that regulated companies tend always and everywhere to outperform their totex allowances and ODIs. GEMA's consequent belief that companies will expect to outperform their RIIO-GD2 price controls, no matter what cost allowances GEMA sets and no matter how different GEMA makes the RIIO-GD2 framework, therefore rests on nothing more than supposition and guesswork. The Appellant submits once again that this is not an acceptable justification for introducing a novel and far-reaching change to the regulatory framework.

(100) Overall, GEMA's failure to evidence the need for the OW and to meaningfully consider or justify the incentive properties of the OW and the ex post adjustment mechanism is a clear error. A recent paper by Phil Burns, one of the authors of the UKRN report[180] which GEMA relies on to justify the introduction of the OW, summarises GEMA's failing as follows. "*Ofgem has not evaluated the outperformance wedge from an incentive perspective; and its rather confused responses to the criticisms raised by stakeholders is no substitute for having done so. It is difficult therefore to avoid the conclusion that Ofgem believes that there is little or no incentive or behavioural consequence associated with the implementation of the wedge. This belief would be entirely inconsistent with the body of theory, evidence and regulatory practice that has built up over several decades. The outperformance wedge is a distortionary piece of incentive design, that carries significant risks of unintended or ignored consequences to the detriment of consumers*."[181]

5 Ongoing Efficiency

(101) In its NoA, the Appellant submitted that GEMA erred in: (i) setting an excessively challenging base OE; and (ii) imposing an "innovation uplift" that was flawed as a matter of principle and based on a

[176] Finance Response, para. 350.

[177] NoA, section 3.4.

[178] Finance Response, para. 362.

[179] Earwaker and Fincham Report (NGNNOA1_134).

[180] UKRN Study (NGNNOA1_183).

[181] Burns (2021), p. 9 (NGNREP1_008).

materially flawed calculation methodology and unsupported by the evidence.[182] GEMA's Response repeats many of the points it made previously in its Final Determinations.[183] However, the Response (i) fails to explain how GEMA's OE target reflects a balanced weighing of the evidence; and (ii) appears, implicitly at least, to accept concerns raised in the Appellant's NoA that there were flaws in the quantification and evidence supporting the innovation uplift.

(102) This section should be read together with the Second Witness Statement of David Pearson (DP2).

5.1 GEMA's base OE target is excessively stretching

5.1.1 The OE target is inconsistent with a balanced assessment of the evidence

(103) GEMA seeks to characterise its decision to set the base OE target as an "*exercise in regulatory judgment which involved a holistic and qualitative assessment of various competing pieces of evidence*".[184] As explained in Section 2.1, however, GEMA's regulatory discretion is legally circumscribed. The Decision errs in adopting a fundamentally imbalanced approach to assessing the relevant evidence.

(104) GEMA's central contention appears to amount to the proposition that the "*holistic*"[185] nature of its assessment means that it cannot be said to have placed disproportionate emphasis on any particular technical assumptions or choices. Mr. Keane's Witness Statement suggests that the appellants have "*misinterpreted the reasoning that [CEPA] set out in our FDs report for the proposed OE range*".[186] GEMA claims that it "had regard" to all of the factors cited in the Appellant's NoA, including GO productivity measures; the targeted industry comparator set; the post-2008 slowdown in productivity growth; and, in setting the OE target for opex, to TFP measures (as well as LP), as part of a "*holistic and qualitative assessment.*"[187]

(105) However, on any view GEMA has failed to give appropriate and proper weight to the evidence that CEPA assembled in its report. CEPA, as GEMA's consultant, deliberately presented GEMA with a range for base OE of 0.5% to 0.95%/1.05% and very explicitly asked GEMA to work through eight important considerations before selecting a point estimate from its range.[188] If GEMA had put any weight on the factors identified by the Appellant in its NoA and CEPA's FD Report, it would have selected OE assumptions that sit below the top end of CEPA's range. However, GEMA's OE assumption came out at the top of CEPA's range and higher than <u>any</u> of CEPA's EU KLEMS comparator benchmarks, including those based <u>only</u> on VA measures, the economy-wide comparator set, and (for the opex challenge) LP measures.

(106) It is therefore clear that GEMA has not given genuine weight to evidence pointing to lower productivity growth as its OE target is higher than CEPA's top-end estimates which, by definition, give no weight to those factors. Beyond the bare assertion that it considered this evidence, GEMA fails to explain how these factors were assessed and weighted as part of a proper regulatory judgement.

(107) In addition, GEMA's Response mischaracterises several of the Appellant's submissions:

(i) <u>GO vs. VA productivity measures</u>: GEMA's Response misconstrues the Appellant's submission by arguing that GEMA was justified in not giving sole or greater weight to GO

[182] NoA, para. 56.

[183] FD Core (revised) (NGNNOA1_166).

[184] Totex Response, para. 74(1).

[185] Totex Response, paras. 74(1), 8(1).

[186] First Witness Statement of Gary Keane (GK1), para. 138 (GK1).

[187] Totex Response, paras. 8(1) and 74(1).

[188] CEPA's FD Report, pp. 7 to 8 (NGNNOA1_230).

measures.[189] The Appellant's submissions were clear that it considers that weight should be given to both GO and VA measures, and did not at any point state that sole or greater weight should be given to GO measures.[190]

(ii) Structural break in productivity post 2008: GEMA contends in its Response that the appellants are wrong to argue that GEMA "*ignored*" the period of lower productivity after 2008.[191] Again, GEMA has misconstrued the Appellant's argument. The Ongoing Efficiency Report did not argue that GEMA disregarded the earlier period; rather, it argued that it was inappropriate for GEMA to downplay the productivity slowdown to justify a point-estimate at the top-end of CEPA's range. The Ongoing Efficiency Report explained that this is what GEMA appears to have done, because CEPA stated in its Final Determinations that "*placing less weight on the wider productivity slowdown in recent years*" was one of the factors that together would support a stretching OE challenge at the top of its suggested range.[192]

(iii) Comparator v economy-wide productivity and "Labour productivity" vs "total factor productivity" metrics: GEMA contends in its Response that it had "regard" to both the economy-wide and targeted comparators and "considered" both the LP and TFP estimates. Again, it is unclear how GEMA can "have regard" to this evidence when its point OE estimate is not based on this evidence at all.[193] The Appellant's submissions in the Ongoing Efficiency Report therefore still stand.

(iv) COVID-19: GEMA states that "*any adjustment to the OE challenge, or conscious decision to aim-down, would have risked an arbitrary lowering of the OE challenge*".[194] Despite the fact that there is abundant evidence that could justify a decision to "aim down", the Appellant did not argue that GEMA should aim down but rather that, taking the impact of COVID-19 together with a balanced consideration of the other evidence, GEMA's conscious decision to "aim up" was inappropriate.[195]

5.1.2 GEMA's justifications are misplaced and not supported by the evidence

(108) In addition to CEPA's analysis, the Response contends that a stretching OE target was justified given: (i) GEMA's judgement that regulated monopolies should be able to achieve significant efficiency gains; (ii) regulatory precedent; (iii) network companies' efficiency forecasts; (iii) alleged outperformance at RIIO-GD1; and (iv) regulatory precedent.[196] The Appellant contends that these factors do not provide a robust underpinning for GEMA's OE target.

(109) First, GEMA reaffirms its (unevidenced) assumption that regulated network companies can achieve efficiency gains beyond competitive sectors.[197] GEMA repeats its assertion, which formed part of its justification at FD for setting a stretching OE target at the top of CEPA's range, that "*the lack of competitive pressure means [GDNs] should be able to place greater management focus on driving high efficiency gains*".[198] But it does not engage with, nor dispute, the Appellant's argument that

[189] Totex Response, paras. 123 to 125.

[190] NoA, para. 334, and Ongoing Efficiency Report, para. 6.2.20, exhibited at (MR1_1).

[191] Totex Response, para. 114.

[192] Ongoing Efficiency Report, paras. 5.1.19, 6.2.3 and 6.2.16, exhibited at (MR1_1). See also CEPA's FD Report, p.8 (NGNNOA1_230).

[193] Totex Response, paras. 127 to 134.

[194] Totex Response, para.148.

[195] In its FD, GEMA explicitly states its decision to "aim up", noting "*[we] have decided to set a stretching ongoing efficiency challenge that 'aims up' within the range considered by our consultants, CEPA*", FD Core (revised), para. 5.21 (NGNNOA1_166).

[196] Totex Response, para. 8(2).

[197] Totex Response, paras. 135 to 136.

[198] FD Core (revised), para. 5.21 (NGNNOA1_166).

such assumption runs contrary to economic theory.[199] Furthermore, GEMA reiterates that regulated networks are more resilient to negative shocks. However, it provides no evidence for this bare assertion and does not engage with the Appellant's arguments that: (i) licence and other statutory obligations may limit the ability of regulated networks to respond to negative shocks; and (ii) GEMA's reasoning is asymmetric (as it suggests that network companies are sheltered from productivity downturns but benefit from periods of high productivity in the benchmark sectors).[200]

(110) Second, GEMA contends that "*[c]ontrary to the appellants' contentions, GEMA cannot be said to have erred in setting an OE challenge higher than that adopted in previous price controls*" and "*there is no regulatory principle that 1.0% represents a hard ceiling*".[201] The Appellant did not argue that regulatory precedent is binding on GEMA. However, given that GEMA's overall OE target significantly exceeds the level at past precedents, GEMA's decision to set such a challenging target should have been cogently evidenced.

(111) GEMA's Response refers to the CMA's PR19 FD[202] and notes that the CMAs set an OE target of 1.0% notwithstanding that the water sector had received no analogous innovation funding in the past.[203] This is another example of GEMA's selective use of precedent and, in particular, PR19 (see Section 2.5 above). Moreover, GEMA's reasoning that GDNs have received innovation funding that was not present in the water sector is flawed. First, as explained in the Appellant's submissions, there is no basis for the innovation uplift. Second, Ofwat has introduced a £200 million innovation fund in PR19, which was recognised by the CMA's decision to set the 1% OE target for PR19.[204] It is therefore reasonable to assume that the 1% OE target at PR19 includes efficiencies associated with this innovation funding. In any event, GEMA conveniently disregards the fact that the CMA set a lower OE target in water, despite the fact that water companies have significantly more complex supply chains and comparatively greater scope for incremental efficiency improvements.

(112) Third, GEMA submits that alleged outperformance at RIIO-GD1 can justify a stretching OE target. This was not a factor cited in GEMA's OE decision in the FD and appears to be an *ex post facto* rationalisation. GEMA's Response presents new analysis which converts all outperformance against RIIO-GD1 allowances into efficiency gains to support "*the notion that a challenging OE target is appropriate*".[205] This analysis, which GEMA concedes is "*extreme*",[206] is uninformative at best (as outperformance at RIIO-GD1 would have come from many sources other than efficiency), and misleading at worst.

(113) Fourth, GEMA argues that it was entitled to have regard to the fact that its OE challenge was "*not out of step with the most ambitious OE assumptions*" set out in companies' business plans.[207] The Response appears to accept that the efficiency estimates of SGN and SPT in their business plans were lower than those considered by CEPA and used as the basis of GEMA's decision. Given that the "most ambitious" forecasts considered by CEPA were explicitly referenced in support of GEMA's approach in the FD as well as a factor listed by CEPA supporting the top end of its range,[208] it

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[199] NoA, para. 333, and Ongoing Efficiency Report, paras. 4.2.35 to 4.2.36, exhibited at (MR1_1).

[200] Ongoing Efficiency Report, footnote 48, exhibited at (MR1_1).

[201] Totex Response, para. 144.

[202] PR19 Final Report (NGNPR19_001).

[203] Totex Response, para. 156.

[204] PR19 Final Report (NGNPR19_001), paras. 4.537 and 2.125. Ofwat explained that this fund would "*provide increased scope for companies to improve performance and efficiency*", see Ofwat Reference of the PR19 Final Determinations, para. 2.12 (NGNREP1_011).

[205] Totex Response, para. 142.

[206] Totex Response, para. 142.

[207] Totex Response, para. 138.

[208] FD Core (revised), para. 5.29 (NGNNOA1_166).

seems fanciful to argue that they had no impact on "*the reasonableness of GEMA's overall decision*".[209]

(114) Finally, GEMA notes that NGN, as the frontier company at RIIO-GD1, realises ongoing efficiencies of over 1.2% p.a. and suggests that this represents a reasonable cross-check.[210] NGN has not been able to review GEMA's empirical analysis behind this figure and therefore cannot comment on its accuracy. While NGN accepts that it made significant efficiency improvements at RIIO-GD1, for the reasons explained in the Second Witness Statement of Mr. Pearson,[211] it does not consider that this presents a reasonable cross-check for the efficiency savings that it (or indeed the rest of the sector) can achieve at RIIO-GD2:

(i) NGN's efficiency improvements at RIIO-GD1 were driven by three significant business restructurings (namely the transformation of workplace T&Cs; switch to a Direct Service Provider model; and investment in new IT systems) which are not repeatable due to the limited scope of operations of a gas distribution business;

(ii) these initiatives required substantial investment from the Appellant's investors of c.£80 million. Given the significant reductions in incentives to improve efficiency compared with RIIO-GD1, equivalent investments are unlikely to be made based on the RIIO-GD2 framework; and

(iii) the 0.5% OE target in NGN's business plan is a realistic and ambitious target (particularly given COVID-19). This is not least given that it is commensurately more difficult for the Appellant, as the frontier company, to realise incremental efficiency improvements. This is recognised by a recent credit note from Moody's: "*Given NGN's status as the <u>frontier company, with limited incremental revenue allowances</u> for this (as reflected in the business plan incentive allowance), delivering this level of incremental efficiencies [1.2% p.a.] will be difficult* (emphasis added)."[212]

(115) In any case, as the CMA emphasised in PR19, historical productivity is not a suitable basis on which to set an OE challenge.[213]

5.2 The innovation uplift is inadequately quantified and empirically flawed

5.2.1 GEMA accepts that the quantification of the uplift was not well-evidenced

(116) While there remain several important disagreements between GEMA and the Appellant with respect to the innovation uplift, the Response accepts that the analysis underpinning the quantification of the innovation uplift is "*consciously simplifying*"[214] and "*broad*".[215]

(117) CEPA notes that there was no robust evidence for establishing a firm quantitative relationship between innovation funding at RIIO-GD1 and the scope for frontier efficiency improvements.[216] Rather than making "*a precise forecast of the efficiency improvements achievable by network companies as a result of innovation funding*", CEPA adopted a "*different perspective*", considering "*the level of efficiency savings which would constitute a reasonable return for consumers*".[217] Thus,

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[209] Totex Response, para. 138.

[210] Totex Response, para. 139.

[211] Second Witness Statement of David Pearson (DP2), para. 16, and NoA, para. 345(ii), noting that GEMA has not engaged with this evidence.

[212] Moody's Credit Opinion, "Northern Gas Networks" (NGNREP1_010).

[213] PR19 Final Report, para. 4.570 (NGNPR19_001).

[214] Totex Response, para. 167. See also Second Witness Statement of Michael Wagner (MW2), para. 142.

[215] Totex Response, paras. 155(5) and 167.

[216] First Witness Statement of Gary Keane (GK1), para. 201.

[217] Totex Response, para. 155(4).

the figure of 0.2% is a speculative and subjective view of the savings that would deliver a "reasonable return" to customers on innovation funding.

(118) As explained in the Appellant's previous submissions,[218] CEPA's quantification methodology of the 0.2% is predicated on ten assumptions. One of these assumptions is the 0.2% innovation uplift itself. Of the remaining nine assumptions, two are entirely unsubstantiated, four are highly arbitrary and simplifying, meaning that the analysis is stylised and its accuracy is inherently limited, and three are demonstrably false. Specifically, CEPA wrongly assumed that:

(i) the only benefits accruing to customers were cost benefits. The Appellant has provided compelling evidence that the primary focus of RIIO-GD1 innovation funding was delivering wider environmental benefits;

(ii) benefits were fully realised during the RIIO-GD2 period only. The Appellant has shown that these innovation projects delivered significant benefits during RIIO-GD1; and

(iii) no additional OE is already embedded in companies' baseline plans. The Appellant notes that cost benefits from innovation projects are fully reflected in its baseline cost forecasts.

(119) As noted by Mr. Keane, CEPA specifically advised GEMA to reflect on a number of these assumptions in calibrating any innovation uplift.[219] There is no evidence that GEMA did so and it ruled this topic out of scope for CEPA's FD report.[220] Indeed, various of GEMA's statements in the Response appear to corroborate that these assumptions are wrong, for example, confirming that innovation funding provides wider non-monetary benefits.[221] It is notable that the Response does not seek to defend the assumptions underpinning CEPA's quantification of the 0.2%. Rather, GEMA acknowledges that CEPA's quantification of the 0.2% was based on "*consciously simplifying assumptions*" and that "*CEPA's estimate was intended to be <u>broad</u> and did not attempt to estimate with a high degree of accuracy the savings which would result from the innovation funding* ".[222] Similarly, Mr. Wagner notes that: "*this approach required some simplifying assumptions, which CEPA deemed appropriate for the level of accuracy that could be delivered through the exercise*".[223]

(120) Similarly, CEPA does not seek to defend these assumptions. Mr Keane simply notes that "*we have not seen any compelling evidence from the Appellants to demonstrate that any alternative assumptions in relation to the speed and duration of benefits and required return for consumers would be superior to the ones that we used*".[224] Without seeking to condone the theoretical validity of CEPA's analysis, however, the Ongoing Efficiency Report demonstrated that the outcome of CEPA's assessment would be radically different (i.e. five times smaller at 0.04%) had CEPA applied a number of equally (or more) plausible assumptions, demonstrating that the approach lacks robustness because is it highly sensitive to a number of arbitrary, and in some cases clearly false, assumptions.[225]

(121) The Response argues that GEMA's decision to introduce a 0.2% innovation uplift represents a proper exercise of regulatory discretion. Mr Wagner states that the assumptions were justified on the basis of the benefits and unique character of innovation funding.[226] However, GEMA's regulatory discretion is legally circumscribed. Put simply, GEMA is not entitled to pluck a figure out of thin air.

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[218] See Ongoing Efficiency Report, paras. 4.3.6 to 4.3.25, exhibited at (MR1_1).

[219] First Witness Statement of Gary Keane (GK1), paras. 41 to 43.

[220] Second Witness Statement of Dr Michael Wagner (MW2), paras. 41 to 43.

[221] Second Witness Statement of Dr Michael Wagner (MW2), Figure 2 and para. 142.

[222] Totex Response, para. 167.

[223] Second Witness Statement of Michael Wagner (MW2), para. 142.

[224] First Witness Statement of Gary Keane (GK2), para. 203.

[225] See Ongoing Efficiency Report, paras. 4.3.26 to 4.3.29, exhibited at (MR1_1).

[226] Second witness statement of Michael Wagner (MW2), para. 142.

As the CMA held in *NPG Determination* in relation to a similar adjustment to totex allowances to account for cost savings from implementing new technologies (so-called Smart Grid Benefits), GEMA must adduce evidence to support a "*specific adjustment*".[227] The importance of a policy goal does not "*negate the need for decisions […] to be justified and supported adequately by reasoning and evidence*".[228]

5.3 GEMA misunderstands the double counting of innovation benefits vs business plans

(122) The Response argues that the uplift is not wrong by virtue of the double-counting of productivity improvements in GDNs' business plans as: (i) any efficiency gains included in business plans were stripped out through the removal of embedded OE; and (ii) to the extent they were not, it is the GDNs' fault for not providing clear information in their plans.[229]

(123) GEMA's first argument misunderstands the Appellant's case. The Appellant argued that the double counting related to efficiency gains that were included in GDNs' <u>baseline</u> cost forecasts in their business plans (rather than in their embedded OE assumptions).[230] In the Ongoing Efficiency Report, it was noted that "*[t]hese savings in baselines are additional to the "embedded" ongoing efficiency that companies layered on top of baseline costs, to reflect productivity growth that they expect to be able to achieve over the course of GD2. GEMA removed these embedded ongoing efficiency figures before carrying out its benchmarking modelling, to avoid double counting between company ongoing efficiency assumptions and its own assumptions. However this removal of embedded future ongoing efficiency does not address the double counting of savings arising from innovation funding which have already been made in GD1 and/or are built into baseline costs*."[231] As such, removing embedded OE cannot address the fundamental double counting issue, which relates to baseline costs.

(124) GEMA's second argument that companies should have provided clear information in their business plans is equally misplaced and, indeed, unfair. As explained in the second Witness Statement of Mr Pearson:[232]

(i) The innovation uplift was a new mechanism and was only proposed by GEMA at DD stage, subsequent to the business plan stage.

(ii) Prior to the business plan submission in December 2019, GEMA did not link innovation funding to OE in any discussions with the Appellants. There was only limited and vague reference to the impact of innovation funding in Business Plan Guidance[233] and no reference in the business plan data tables guidance.[234] In its Business Plan,[235] in line with guidance, the Appellant cited examples of innovations and explained that cost savings were built into its RIIO-GD2 cost forecasts.

(iii) At the DD stage, both the Appellant and GEMA's own consultants flagged the double-counting issue. GEMA had ample opportunity to request further information at this stage and could and should have done so. GEMA recognises that it "*undertook an extensive and iterative process of raising supplementary questions in relation to the information contained*

[227] *NPG Determination*, para. 4.2 (NGNNOA1_194).

[228] *NPG Determination*, para. 4.132 (NGNNOA1_194).

[229] Totex Response, paras. 160 to 161. The Appellant notes that GEMA argues that Cadent's Ground 1B(1) is flawed by virtue of the fact that it runes "a risk of double-counting other regional factor adjustments." Totex Response, para. 394.

[230] See Ongoing Efficiency Report, para. 4.2.37, exhibited at (MR1_1).

[231] Ongoing Efficiency Report, para. 4.2.42, exhibited at (MR1_1).

[232] Second Witness Statement of David Pearson (DP2), Section II.

[233] Final Business Plan Guidance (NGNNOA1_153).

[234] Draft and Final BPDTs and BPDT Guidance, exhibited at (DP2_002 to DP2_005).

[235] RIIO-GD2 Business Plan (NGNNOA1_001).

in GDNs' Business Plans. In total, GEMA asked over 1,000 questions on policy, engineering and costs aspects of GDN submissions."[236] It is surprising that this extensive engagement process never raised any questions about quantification of efficiency gains and innovation in GDNs' baseline costs.

(125) It follows from the points above that GEMA's decision to apply an uplift suffers from a fundamental double-counting issue. Contrary to GEMA's submission, there is a direct parallel with the CMA's decision in the *NPG Determination*.[237] While in the case of the so-called Smart Grid Benefits GEMA agreed that a methodology which removed double-counting was reasonable, GEMA made no such attempt for the innovation uplift. The Appellant therefore invites the CMA to conclude that GEMA was wrong to introduce the uplift because of an equivalent error of law and/or of fact as in the *NPG Determination*.

5.4 Conceptual basis for the uplift versus competitive sectors

(126) GEMA submits that, while CEPA flagged the risk of double-counting with productivity improvements in the EU KLEMS data, the innovation uplift was nevertheless justified. GEMA argues that this was justified on the basis of several vague assertions:

(127) First, innovation funding is "*entirely unique*"[238] to network companies because it has a different risk-sharing profile. But it is not clear why the risk sharing profile of R&D funding is relevant for the purposes of determining its impact on productivity. It is also not clear that this risk profile makes the funding "unique". GEMA's assertion is not only unsubstantiated (e.g. it does not consider whether other sectors within EU KLEMS may benefit from government R&D subsidies), but does not address the central issue of whether innovation funding for network companies is incremental to R&D spend in competitive sectors.

(128) Second, innovation funding represents additional funding over and above any investment which the network companies may themselves make in order to drive innovation.[239] As explained in the Ongoing Efficiency Report, innovation funding was introduced in the first place, however, in part to plug a gap relative to competitive sectors because monopoly network companies generally undertake less than optimal levels of innovation.[240]

(129) Third, GEMA argues that the learnings of innovation funded projects are rapidly shared for the benefit of the sector as a whole.[241] The Appellant accepts that lessons are shared quickly across the sector, but notes that GEMA provides no evidence that this would result in higher productivity growth relative to other sectors included in EU KLEMS.

5.5 Summary

(130) GEMA's base OE target is excessive and is not, as GEMA's Response claims, consistent with a balanced consideration of the evidence. Setting the OE target at the very top of CEPA's range is particularly problematic given the adverse impact of COVID-19, the sustained UK productivity slump and GEMA's aggressive stance in calibrating other aspects of the package. In relation to the innovation uplfit, it is clear that companies' RIIO-GD2 business plans did factor in efficiencies and that customers have therefore already received a fair return on their investment. Moreover, GEMA's Response does not engage with the Appellants' submissions that the quantification of

[236] Totex Response, para. 276(4).

[237] *NPG Determination* (NGNNOA1_194).

[238] Totex Response, para. 155(1).

[239] Totex Response, para. 155(2).

[240] Ongoing Efficiency Report, paras. 4.2.26 to 4.2.29, exhibited at (MR1_1).

[241] Totex Response, para. 155(3).

the uplift is demonstrably flawed and, indeed, implicitly accepts that its approach was characterised by a lack of empirical rigour.

6 BPI Stage 4

(131) The Appellant notes and welcomes that GEMA's Response acknowledges the inconsistency between the stated intentions of GEMA's FD and the calculations which it used to derive NGN's BPI Stage 4 reward in the Price Control Financial Model. GEMA has, accordingly, conceded Ground 4A(ii) of the NoA. The Appellant agrees that a direction by the CMA to increase NGN's BPI Stage 4 reward to £8.5 million should dispose of sub-ground of appeal 4A(ii). The Appellant also welcomes the correction that GEMA has made with respect to NGN's Stage 3 penalty.

(132) In light of GEMA's invitation to the CMA to correct the error identified in the Appellant's Ground 4A(ii), which increases the Appellant's BPI Stage 4 reward, the Appellant seeks permission from the CMA pursuant to paragraph 8.1 of the CMA's Energy Licence Modification Appeal Rules to withdraw the remainder of Ground 4 of its Notice of Appeal (namely sub-ground 4A(i) and sub-ground 4B).

(133) The Appellant notes GEMA's statement that the CMA may choose to consider interlinkages that may impact the Appellant's BPI Stage 4 reward. The Appellant notes that GEMA's Response has not identified any such interlinkage. In any case, if and when the CMA accedes to the Appellant's request to withdraw sub-grounds 4A(i) and 4B, none of its remaining grounds of appeal will, on any view, be interlinked with its BPI Stage 4 reward (sub-ground 4A(ii)).

7 STATEMENT OF TRUTH

The Appellant believes that the facts stated in this Submission are true.

………………………………………………..

Signature of Authorised Representative

Mark Horsley, Chief Executive Officer

………………………………………………..

Name of Authorised Representative

Date: 10 May 2021

for and on behalf of Northern Gas Networks Limited