

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

NOTICE OF APPEAL
GAS DISTRIBUTION LICENCE MODIFICATION
RIIO-GD3 PRICE CONTROL

Linklaters LLP
20 Ropemaker Street
London
EC2Y 9AR
Tel +44 20 7456 2000
Fax +44 20 7456 2222

Table of Contents

Contents	Page
PART I INTRODUCTION.....	6
1 Overview	6
2 Request for permission to appeal	6
3 Scope of the Appellant's appeal.....	6
4 Key documents.....	7
5 Contact details.....	8
5.1 Appellant	8
5.2 Appellant's address for receipt of documents	8
5.3 Solicitors to the Appellant.....	8
6 Structure of this Notice	8
PART II CONTEXT OF RIIO-GD3 AND THIS APPEAL	10
1 Overview	10
2 Pathway to RIIO-GD3	10
2.1 RIIO-GD1	10
2.2 RIIO-GD2	11
2.3 The RIIO-GD3 regime	11
3 Context to this appeal	13
PART III SUMMARY OF THE GROUND OF APPEAL AND RELIEF SOUGHT	15
1 Overview	15
2 Appeal Ground: Ongoing Efficiency	15
3 Legal consequences	15
4 Relief Sought.....	16
5 The facts and reasons supporting the appeal.....	17
PART IV STATUTORY FRAMEWORK.....	18
1 Overview	18
2 Statutory grounds of appeal	18

2.1	Section 23D(4)(a): GEMA failed properly to have regard to any matter in section 23D(2) GA86	18
2.2	Section 23D(4)(b): GEMA failed to give the appropriate weight to any of its obligations	22
2.3	Section 23D(4)(c): GEMA's decision was based, wholly or partly, on an error of fact	22
2.4	Section 23D(4)(d): The licence modifications fail to achieve, in whole or in part, the effect stated by GEMA	23
2.5	Section 23D(4)(e): GEMA's decision was wrong in law	24
2.6	Standard of review	24
2.7	Materiality	25
3	Relief sought	26
PART V APPEAL GROUND: Ongoing Efficiency		27
1	Overview	27
2	Background on OE for RIIO-GD3.....	28
2.1	The role of ongoing efficiency in a price review	28
2.2	An explainer on productivity growth	28
2.3	How GEMA set its 1% OE figure at RIIO-3	28
2.4	Regulatory precedent.....	31
3	GEMA's errors in its OE assessment	32
3.1	Error 1: GEMA has erred in that an OE parameter of 1% is not compatible with the evidence of the UK's sustained and ongoing structural productivity weakness	35
3.2	Error 1A: GEMA mistakenly and erroneously relied upon the OBR's labour productivity growth forecast (i.e. output per hour) instead of TFP growth forecasts	39
3.3	Error 1B: GEMA erred in concluding that having regard to the latest OBR forecasts requires in-period adjustments	40
3.4	Error 2: GEMA's assertion that energy networks are " <i>insulated</i> " from and can " <i>outperform</i> " the economy-wide slowdown is unevicenced and flawed	41
3.5	Error 3: GEMA inappropriately relied on a single piece of evidence (NGET's 0.7% business plan assumption) as an absolute floor on its OE assessment and disregarded other relevant evidence	45
3.6	Error 4: GEMA has erred in its reliance on qualitative factors in support of its OE figure that are unsubstantiated and/or spurious.....	46

3.7 Conclusion: GEMA’s errors in its OE assessment will have significant consequences for the Appellant and customers..... 50

4 Remedy 50

STATEMENT OF TRUTH 51

ANNEX I GLOSSARY 52

ANNEX II CHRONOLOGY 55

ANNEX III RELIEF 57

1 Appeal Ground 1: Ongoing Efficiency 57

1.1 Relief sought 57

1.2 Required amendments for ongoing efficiency..... 57

1.3 Required amendments for totex allowances..... 57

2 Amendments to Licence..... 57

APPENDIX 1 TO ANNEX III 59

Written evidence

- 1** Exhibit NGNNOA1
- 2** First Witness Statement of Dean Pearson (“**DP1**”)
- 3** Exhibits DP1_001 to DP1_011 to the First Witness Statement of Dean Pearson
- 4** First Witness Statement of Matthew Roberts (“**MR1**”)
- 5** Exhibits MR1_1 to MR1_2 to the First Witness Statement of Matthew Roberts

PART I INTRODUCTION

1 Overview

- (1) Northern Gas Networks Limited (“**NGN**”) (the “**Appellant**”) is a gas distribution network (“**GDN**”) operating across Yorkshire, the North East and Northern Cumbria.
- (2) This appeal concerns the third determination for gas distribution (“**GD**”) made by the Gas and Electricity Markets Authority (“**GEMA**”)¹ under the RIIO price control regime (setting Revenue using Incentives to deliver Innovation and Outputs). This price control, known as “**RIIO-3**”, will operate from 1 April 2026 to 31 March 2031. “**RIIO-GD3**” is the price control which applies to the GDNs.

2 Request for permission to appeal

- (3) The Appellant seeks permission to bring an appeal (and, if permission is granted, to appeal) under sections 23B(1) and (3) of the Gas Act 1986 (“**GA86**”) against the decision of GEMA to proceed with modifications to the licence published on 3 February 2026 (the “**Decision**”) under section 23 GA86.²
- (4) The Appellant seeks permission to bring this appeal in its capacity as a relevant licence holder. Section 23B(2)(a) GA86 provides that a relevant licence holder (within the meaning of section 23 GA86) may bring an appeal. Accordingly, the Appellant has standing to bring this appeal.
- (5) The Appellant notes that in case of an appeal brought by a relevant licence holder, section 23B(4)(d) GA86 provides that the Competition and Markets Authority (“**CMA**”) may refuse permission to appeal only on one of the following statutory grounds listed in that section:
 - (a) the appeal is brought for reasons that are trivial or vexatious; and
 - (b) the appeal has no reasonable prospect of success.
- (6) Neither of these potential grounds to refuse permission is applicable to any of the grounds raised by the Appellant in this appeal.

3 Scope of the Appellant’s appeal

- (7) The sections of the Decision in respect of which permission to appeal is sought are set out in Annex III (Relief). The parts of the RIIO-3 Final Determinations (“**RIIO-3 FD**”) that are relevant to this appeal are: FD Overview Document (paras 8.20-8.61) and FD GD Annex (paras 5.504-5.506).
- (8) The Appellant has given careful consideration to the overriding objective of the appeals regime, that is, for the CMA to dispose of appeals fairly and efficiently and at proportionate cost within the time periods prescribed by GA86 (and for all parties to an appeal and any intervener to assist the CMA in furthering the overriding objective),³ and to the CMA’s guidance that it will seek to narrow the issues and points in dispute during the course of the appeal.⁴
- (9) While the Appellant has raised concerns with GEMA during the RIIO-3 process (including in its response to the Draft Determinations (“**RIIO-3 DD**”)) in relation to a number of aspects of the RIIO-GD3 framework, the Appellant has taken a very targeted and proportionate approach to this appeal. In particular, the

¹ In this Notice, all references to GEMA include references to the Office of Gas and Electricity Markets (“**Ofgem**”) or its staff in their capacity as delegates of GEMA.

² A copy of the Decision is included as NGNNOA1_001. The Decision is also available online at: <https://www.ofgem.gov.uk/consultation/modifications-riio-3-licences-and-associated-documents>. NGN has notified GEMA of its intention to appeal.

³ [CMA70 Energy Licence Modification Appeals Rules](#), rules 4.1 and 4.2.

⁴ [CMA71 Energy Licence Modification Appeals Guide](#), paragraph 3.6.

Appellant has carefully assessed which issues are appropriate for resolution through the appeals process, having regard to the materiality of the errors, their impact on both the Appellant and the regulatory framework more broadly, and the precedential significance of GEMA's approach. Accordingly, the Appellant has focused its appeal on a single issue where GEMA has made material errors, namely the parameter for Ongoing Efficiency ("**OE**"), which will have a significant adverse impact on the Appellant and its customers and may also have precedential value for future price controls (if uncorrected). The detailed grounds of appeal in respect of this issue are summarised in Part III (Summary of the Ground of Appeal and Relief Sought) below.

4 Key documents

- (10) The Appellant has provided written evidence for this appeal, principally in the form of the First Witness Statement of Dean Pearson ("**DP1**"). The Appellant will also draw on the Frontier Economics Report, '*Assessment of GEMA's Approach to Setting Ongoing Efficiency at RIIO-3*' (the "**Ongoing Efficiency Report**"), exhibited to the First Witness Statement of Matthew Roberts at MR1_1.
- (11) The Appellant has also exhibited documents in Exhibit NGNNOA1 to this Notice, including the following key materials which set out GEMA's reasoning for the Decision:⁵
- (a) RIIO-3 Final Determinations: Overview Document ("**RIIO-3 FD Overview**") (NGNNOA1_032);
 - (b) RIIO-3 Final Determinations: Gas Distribution ("**RIIO-3 FD GD**") (NGNNOA1_034);
 - (c) RIIO-3 Final Determinations: Northern Gas Networks (NGN) ("**RIIO-3 FD NGN**") (NGNNOA1_035);
 - (d) RIIO-3 Final Determinations: Finance Annex ("**RIIO-3 FD Finance Annex**") (NGNNOA1_036);
 - (e) RIIO-3 Final Determinations: Impact Assessment ("**RIIO-3 FD Impact Assessment**") (NGNNOA1_033);
 - (f) RIIO-3 Technical Annex: Independent Report on Ongoing Efficiency ("**First Independent Report**") (NGNNOA1_026); and
 - (g) RIIO-3 Technical Annex: Second Independent Report on Ongoing Efficiency ("**Second Independent Report**") (NGNNOA1_037).
- (12) The Appellant confirms that, in its belief, the matters relied on in any ground of appeal to which GEMA was unable to have regard in reaching its Decision are limited to the following, each of which post-dated GEMA's Decision:⁶
- (a) CMA's '*Technology, productivity and competition*', December 2025;⁷
 - (b) Bank of England's '*Forecast Evaluation Report*', January 2026;⁸
 - (c) Bank of England's '*Monetary Policy Report*', February 2026.⁹

⁵ On 3 February 2026, GEMA published its final licence modification decision, following a consultation period under section 23 GA86 and the publication of all FD documents on 4 December 2025.

⁶ For completeness, please note that each of the following exhibits to the Ongoing Efficiency Report were also published after the RIIO-3 Final Determinations were issued: Keynes, S., Would a 'mild zombie apocalypse' be a good thing for the UK economy (January 2026) (MR1/2/045); Resolution Foundation, New Year Outlook (December 2026) (MR1/2/046); Fleming, S. and Strauss, D., Is the UK on the cusp of a productivity revival (January 2026) (MR1/2/071); Keynes, S., Where is AI showing up in the productivity data (February 2026) (MR1/2/072); Boulette, A., Most workers spend 3+ hours per week cleaning up AI workslop (January 2026) (MR1/2/078); Coderabbit, Our new report: AI code creates 1.7x more problems (December 2025) (MR1/2/079); Fleming, S. and Romei, V., US to extend productivity lead on back of AI boom, say economists (January 2026) (MR1/2/080).

⁷ CMA, *Technology, productivity and competition* (10 December 2025) (NGNNOA1_068).

⁸ BoE, *Forecast Evaluation Report* (23 January 2026) (NGNNOA1_069).

⁹ BoE, *Monetary Policy Report* (February 2026) (MR1/2/035).

(13) Each of the above is as incorporated within the Notice of Appeal and/or Ongoing Efficiency Report.

5 Contact details

5.1 Appellant

Northern Gas Networks Limited
(registered in England and Wales, number 05167070)

5.2 Appellant's address for receipt of documents

1100 Century Way
Thorpe Park Business Park
Colton
Leeds
LS15 8TU

FAO:

Greg Dodd, Regulation & Strategic Planning Director

Alex O'Connell, Legal Director & Company Secretary

Dean Pearson, Head of Regulation

5.3 Solicitors to the Appellant

Linklaters LLP
20 Ropemaker Street
London
EC2Y 9AR

FAO:

Natura Gracia, Partner
+44 20 7456 4941 / natura.gracia@linklaters.com

Mark Daniel, Partner
+44 20 7456 5445 / mark.daniel@linklaters.com

Sofia Platzer, Managing Associate
+44 20 7456 4253 / sofia.platzer@linklaters.com

Nanret Senok, Associate
+44 20 7456 3229 / nanret.senok@linklaters.com

6 Structure of this Notice

(14) This Notice of Appeal is structured as follows:

- (a) Part I (Introduction) of this Notice provides an overview of the basis on which the Appellant brings its Appeal.

- (b) Part II (Context of RIIO-GD3 and this Appeal) explains the context of RIIO-GD3 and this appeal.
- (c) Part III (Summary of the Ground of Appeal and Relief Sought) summarises the ground of appeal and relief sought.
- (d) Part IV (Statutory Framework) sets out the relevant statutory framework.
- (e) Part V (Appeal Ground: Ongoing Efficiency) sets out the ground of appeal in detail.
- (f) Annex I is the glossary of terms used in this Notice.
- (g) Annex II is a chronology of key steps leading up to the Decision and this Appeal.
- (h) Annex III sets out the relief sought.

PART II

CONTEXT OF RIIO-GD3 AND THIS APPEAL

1 Overview

- (15) The Appellant supports incentive-based regulation and has sought to engage constructively and transparently with GEMA throughout the RIIO-GD3 price control process. The Appellant recognises, and welcomes, the constructive manner in which GEMA has approached these discussions.
- (16) The Appellant has material concerns regarding certain aspects of the overall RIIO-GD3 price control, which represents a substantial stretch for NGN and the sector. The Appellant considers that certain aspects do not operate in its customers' best interests and will require changes in future price control periods. In particular, NGN has explained to GEMA during the RIIO-GD3 consultation (including in response to the DD) that the RIIO-GD3 incentive properties do not serve to adequately reward and incentivise sustained frontier performance or hold weak performers to account in a way that would deliver optimal outcomes for customers. Rather, the current framework places an undue weight on short-term lowest cost forecast business plans over delivering good customer outcomes, something NGN has been clear with GEMA is analogous to shortcomings observed by the Independent Water Commission in the water industry.¹⁰ Following careful consideration, however, the NGN Board has taken the view that it can accept the RIIO-GD3 price control as it relates to these issues in the context of the overall RIIO-GD3 package in the round. NGN is committed to working constructively with GEMA through ongoing dialogue to ensure that these issues are addressed in future price control periods.
- (17) GEMA's determination on OE, however, stands apart as a material (and self-contained) error with respect to an important regulatory principle. An OE figure of 1% is simply not commensurate with the evidence available to GEMA of the UK's sustained and ongoing structural productivity weakness. The excessive OE figure will have adverse implications on the Appellant and its customers at RIIO-GD3, by failing to fund the Appellant for its efficient costs. Moreover, given the way in which GEMA has used its 1% OE level from RIIO-GD2 as the starting point for its flawed decision to also set the OE figure at 1% for RIIO-GD3, NGN considers that this Decision will result in adverse outcomes for future regulatory determinations if not corrected through this appeal.

2 Pathway to RIIO-GD3

2.1 RIIO-GD1

- (18) Following a detailed review of the RPI-X regime, known as RPI-X@20, GEMA decided to replace the RPI-X with the RIIO model.¹¹ This model was intended to place greater responsibility on the regulated companies, working together with their stakeholders, to determine the best way of providing sustainable network services ("**Outputs**") for the long term, including by achieving long-term value for money.¹² Once the Outputs were set, the regulated companies were required to identify the optimal balance between operating and capital expenditure and to take investment decisions from a long-term perspective, extending beyond the price control period.¹³ Subsequently, GEMA assessed each company's business plan for achieving these Outputs in the coming price control period and set revenues.¹⁴ This would be subject to inflation but after taking into account productivity improvements and efficiencies that formed a part of the plan.

¹⁰ Independent Water Commission, [Final Report](#) (21 July 2025), pages 182-183, 208-209 (NGNNOA1_054).

¹¹ GEMA, [Handbook for implementing the RIIO model](#) ("**RIIO Handbook**"), pages 1-2 (NGNNOA1_040).

¹² [RIIO Handbook](#), paragraph 1.10 (NGNNOA1_040).

¹³ [RIIO Handbook](#), paragraphs 1.10 and 1.12 (NGNNOA1_040).

¹⁴ [RIIO Handbook](#), paragraph 2.3 (NGNNOA1_040).

- (19) The first RIIO price control in the gas distribution sector was the RIIO-GD1 price control, which covered the period from 1 April 2013 to 31 March 2021. As part of its baseline total expenditure (“**totex**”) allowance, GEMA set an OE figure of 1% per annum on operating expenditure (“**opex**”), 0.7% on replacement expenditure (“**repex**”) and capital expenditure (“**capex**”) (implied totex of 0.8%). OE reflects the expected productivity improvements over the price control period that can be achieved by even the most efficient company in the sector.¹⁵

2.2 RIIO-GD2

- (20) The second RIIO price control in the gas distribution sector was the RIIO-GD2 price control, which covers the period from 1 April 2021 to 31 March 2026. In the RIIO-2 Final Determinations (“**RIIO-2 FD**”), GEMA increased the OE figure from 0.7-1.0% to ~1.2% per annum¹⁶ and increased the catch-up efficiency benchmark to the 85th percentile, compared to the 75th percentile applied throughout RIIO-GD1.¹⁷
- (21) The RIIO-GD2 OE figure set by GEMA was at the top end of its own economic advisers’ (CEPA) recommended range and was inclusive of an “innovation uplift”.¹⁸ GEMA decided not to place significant weight on productivity growth forecasts from the Office for Budget Responsibility (“**OBR**”) and Bank of England (“**BoE**”).
- (22) GEMA’s decision on OE (among other grounds) was appealed to the CMA by five GDNs including NGN (“**RIIO-2 ELM Appeals**”). Whilst the CMA determined that GEMA did not err when setting the level of the core OE figure, it found that GEMA made material errors in its decision to set the innovation uplift at 0.2%. First, GEMA erred when it assumed that all of the Network Innovation Allowance (“**NIA**”) and Network Innovation Competition (“**NIC**”) funding should result in cost savings, which was sufficient to conclude that GEMA erred in the quantification of the benefits from the innovation funding. Second, GEMA erred when it assumed that innovation funding was entirely incremental. Third, GEMA erred when it double-counted the innovation cost savings that were already included in the companies’ business plans. Fourth, GEMA erred when it did not sufficiently consider the potential disincentive effect of the innovation uplift.¹⁹
- (23) After removing the erroneous 0.2% uplift, the CMA set the OE parameter for the RIIO-GD2 period at 0.95% for repex/capex and 1.05% for opex.²⁰

2.3 The RIIO-GD3 regime

- (24) The RIIO-GD3 price control will commence on 1 April 2026 and run until 31 March 2031. The process began in September 2022 with an Open Letter on the future systems and network regulation framework,²¹ followed by a consultation on that overarching framework in March 2023.²² In July 2023, GEMA published an Open Letter on its decision to develop a medium-term *ex ante* price control for gas networks.²³ A Framework Decision was published in October 2023 that retained the broad RIIO-3 approach.²⁴

¹⁵ GEMA, [RIIO-3 DD Overview](#), paragraph 8.22 (NGNNOA1_022). See also Grant Thornton, [Second Independent Report](#), paragraph 1.3 (NGNNOA1_037).

¹⁶ 1.15% for capex and repex and 1.25% for opex (Grant Thornton, [First Independent Report](#), page 23 (NGNNOA1_026)).

¹⁷ GEMA, [RIIO-2 FD GD Sector Annex \(Revised\)](#), paragraphs 1.11-1.12 (NGNNOA1_050).

¹⁸ Grant Thornton, [First Independent Report](#), page 23 (NGNNOA1_026).

¹⁹ CMA, [RIIO-2 ELM Appeals, FD Volume 2B](#), paragraph 7.802 (NGNNOA1_052).

²⁰ Grant Thornton, [First Independent Report](#), page 24 (NGNNOA1_026).

²¹ GEMA, [Open Letter on the next network price control review process](#) (29 September 2022) (NGNNOA1_007).

²² GEMA, [Consultation on frameworks for future systems and network regulation: enabling an energy system for the future](#) (10 March 2023) (NGNNOA1_009).

²³ GEMA, [Open Letter on the Future of Gas Price Controls](#) (26 July 2023) (NGNNOA1_010).

²⁴ GEMA, [Future Systems and Network Regulation: Framework Decision Overview](#) (26 October 2023) (NGNNOA1_011).

- (25) In July 2024, GEMA published its Sector Specific Methodology Decisions (“**SSMDs**”), setting out how the RIIO-3 framework would apply to gas distribution and electricity and gas transmission and providing the basis for network companies to prepare their RIIO-3 business plans.²⁵
- (26) Network companies submitted and published their business plans in December 2024,²⁶ after which GEMA issued the RIIO-3 DD for each sector and licensee in July 2025. Following a consultation (which closed on 26 August 2025) GEMA issued its RIIO-3 FD in December 2025.
- (27) Following the publication of the RIIO-3 FD, several errors were identified across both the cost assessment models and financial models. GEMA therefore implemented a staged erratum process to identify, assess and correct these issues.
- (a) First, GEMA ran a cost assessment model erratum process, which concluded on 9 January 2026. This process allowed companies to formally log issues and errors identified within the RIIO-GD3 cost models.
 - (b) In parallel, the statutory consultation on licence modifications concluded on 17 January 2026.²⁷ During this consultation, NGN provided feedback to GEMA highlighting errors and inconsistencies within the draft licence text and associated materials.
 - (c) Following the publication of the Decision on 3 February 2026, further material errors persisted in GEMA’s modelling. An update was issued which corrected a number of errors however, further errors were introduced and networks were provided with a final opportunity to submit additional material issues, with a submission deadline of 9 February 2026.
 - (d) Following engagement in this final erratum window, a revised model was issued on 16 February 2026, which still contained errors that were flagged by NGN and addressed by GEMA. NGN received a final model run on 23 February 2026. This resulted in changes to totex and Business Plan Incentive (“**BPI**”) across all gas distribution networks.
- (28) GEMA’s stated objective for RIIO-GD3 is to deliver a safe and resilient network while managing uncertainty on the future of gas.²⁸
- (29) GEMA is seeking to deliver this objective for RIIO-GD3 by maintaining the progress reached in RIIO-GD1 and RIIO-GD2 in providing services that consumers value and delivering a network that is environmentally sustainable. GEMA expects RIIO-GD3 to deliver for consumers through a combination of improved network resilience, better service quality, and long-term cost efficiency.²⁹
- (30) With respect to OE, GEMA decided to apply what it considers a “*stretching but deliverable ongoing efficiency target*” of 1% for all GDNs and all electricity/gas transmission companies.³⁰ In GEMA’s view, this figure is consistent with:³¹
- (a) historical evidence of productivity growth and the latest forecasts of future productivity growth;
 - (b) the highest estimate submitted by one network company (National Grid Electricity Transmission plc (“**NET**”) in its business plan);

²⁵ GEMA, RIIO-3 SSMD – [Overview Document](#) (NGNNOA1_012), [Finance Annex](#) (NGNNOA1_013), [GD Annex](#) (NGNNOA1_014).

²⁶ [NGN Business Plan 2026 – 2031](#) (NGNNOA1_015 to NGNNOA_021).

²⁷ GEMA, [Modifications to the RIIO-3 licences and associated documents](#) (NGNNOA1_001 to NGNNOA_006).

²⁸ GEMA, [RIIO-3 FD GD](#), page 9 (NGNNOA1_034).

²⁹ GEMA, [RIIO-3 FD GD](#), paragraphs 2.1-2.10 (NGNNOA1_034).

³⁰ GEMA, [RIIO-3 FD GD](#), paragraph 2.12 (NGNNOA1_034).

³¹ GEMA, [RIIO-3 FD Overview](#), paragraphs 8.20-8.23, 8.38-8.55 (NGNNOA1_032).

- (c) a view that regulated network companies have the potential to outperform the wider economy, in particular because they are insulated from the recent headwinds that have been weighing on economy-wide productivity growth;
 - (d) a number of more qualitative factors, including *inter alia* the overall scale of investment expected; and
 - (e) the opportunities presented from new technologies (including Advanced Leakage Detection (“**ALD**”) and Digital Platform for Leakage Analytics (“**DPLA**”)).
- (31) On the first of these points, at the RIIO-3 DD stage GEMA recognised that UK productivity growth since the 2008 Global Financial Crisis (“**GFC**”) had been comparatively weaker than that observed prior to the GFC.³² Additionally, medium-term economy-wide productivity forecasts by institutions like the OBR and BoE have been revising down the expected labour productivity growth rates over time, reflecting a subdued productivity growth outlook.³³ However, in the RIIO-3 FD, while GEMA notes that it gave “*qualitative consideration to independent forecasts of wider UK productivity growth from the OBR and BoE in coming to our OE target*”, it notes that “*its approach to setting OE does not tie the outcome directly to such forecasts*”.³⁴
- (32) GEMA’s methodology for setting the OE figure at RIIO-GD3 is explained further at Section 3 of Part V (Appeal Ground: Ongoing Efficiency).

3 Context to this appeal

- (33) As explained above, the Appellant has concerns about aspects of the overall RIIO-GD3 price control and believes that it represents a substantial stretch for NGN and the sector. The Appellant also considers that the RIIO-GD3 incentive properties do not serve to reward and incentivise sustained frontier performance or hold weak performers to account in a way that would deliver optimal outcomes for customers. Following careful consideration, however, the NGN Board has taken the view that it can accept the RIIO-GD3 price control as it relates to these issues given the package in the round, and NGN is committed to working with GEMA through ongoing dialogue to ensure that these issues are addressed in future price control periods.
- (34) GEMA’s decision with respect to a 1% OE figure, however, stands apart as a material and standalone error with respect to an important regulatory principle. This excessive OE figure will have adverse impacts on NGN and its customers at RIIO-GD3. If uncorrected, it will also impact future price controls (noting that GEMA used its RIIO-2 OE figure as its starting point at RIIO-3).
- (35) The Appellant recognises that the CMA’s final determination in the RIIO-2 ELM Appeals found that GEMA did not err in setting a ~1% OE figure, and that GEMA should be afforded a margin of appreciation when setting the OE figure to reflect the different evidence sources. Significantly, in reaching its decision, the CMA stated that “*the BoE and OBR data do not conclusively show that productivity growth will continue to be low*”.³⁵
- (36) As evidenced in this Notice of Appeal, however, since the CMA’s determination in the RIIO-2 ELM Appeals, the evidence base has decisively changed. There is now extensive and compelling evidence of a slowdown in economy-wide productivity growth and/or forecasts for economy-wide productivity growth since the GFC. For the past 18 years, most sectors of the UK economy have experienced a prolonged period of flat (and near-zero) growth.³⁶ Moreover, third-party estimates (including by the BoE

³² GEMA, [RIIO-3 DD Overview](#), paragraph 8.33 (NGNNOA1_022).

³³ Frontier Economics, Ongoing Efficiency Report, Section 3.2 (exhibited at MR1_1).

³⁴ GEMA, [RIIO-3 FD Overview](#), paragraph 8.47 (NGNNOA1_032).

³⁵ CMA, [RIIO-2 ELM Appeals, FD Volume 2B](#), paragraph 7.84 (NGNNOA1_052).

³⁶ Economic Insight, [Ongoing Efficiency for Gas Networks at RIIO-3](#) (13 May 2024), page 7 (NGNNOA1_016).

and OBR) demonstrate that it is not credible for GEMA to believe/expect that the UK economy can rapidly rebound towards pre-2008 rates of productivity growth.³⁷ In summary, a 1% OE figure is not compatible with, or supported by, the evidence demonstrating the UK's sustained and ongoing structural productivity weakness.

- (37) While GEMA acknowledged the productivity growth forecasts from the BoE and the OBR, its view at RIIO-3 FD was that such forecasts are uncertain and prone to future change, that it is important to set a “*stretching but achievable efficiency challenge*” for regulated network companies, and that regulated network companies can outperform the average UK firm.³⁸ This Notice of Appeal demonstrates that these justifications are unsubstantiated, misconceived and represent errors of law and fact in their own right.
- (38) GEMA considers that setting OE at 1% for RIIO-GD3 is “*an exercise of regulatory judgement and involves taking account of multiple factors as well as assessing the relevance of different evidence sources in the context of regulated network companies*”.³⁹ However, setting a 1% OE figure for RIIO-GD3, where there is simply not the evidence to support it in the context of the UK's sustained and ongoing structural productivity weakness, is not within any reasonable margin of appreciation of regulatory judgement. The Appellant submits that an alternative approach which gives appropriate recognition to evidence regarding the slowdown in productivity is “*materially better*” and “*offers something more*” than GEMA's approach (applying by extension the test laid down by the High Court in *Wales & West Utilities Limited v Competition and Markets Authority* in relation to sections 23D(4)(a) and (b) GA86).⁴⁰
- (39) For further information on the Appellant and its efficiency performance; the operational realities for regulated networks such as the Appellant which mean that they are not “*insulated*” from the factors adversely impacting UK economy-wide productivity; and the basis on which the Appellant set the OE level in its Business Plan submission, please refer to the First Witness Statement of Dean Pearson (DP1).

³⁷ See Figures 3 and 4 in Part V below.

³⁸ GEMA, *RIIO-3 FD Overview*, paragraphs 8.47-8.50 (NGNNOA1_032).

³⁹ GEMA, *RIIO-3 FD Overview*, paragraph 8.55 (NGNNOA1_032).

⁴⁰ [2026] EWHC 99 (Admin) (“*Wales & West Utilities v CMA*”) (NGNNOA1_063).

PART III

SUMMARY OF THE GROUND OF APPEAL AND RELIEF SOUGHT

1 Overview

- (40) Under section 23D(4) GA86, the CMA may allow an appeal where it is satisfied that the decision appealed against was wrong on one or more of the following grounds:
- (a) GEMA failed properly to have regard and/or give the appropriate weight to:
 - (i) its principal objective under section 4AA GA86; and/or
 - (ii) its statutory duties under sections 4AA, or 4AB and 4A GA86;⁴¹
 - (b) the Decision was based, wholly or partly, on errors of fact;⁴²
 - (c) the licence modifications fail to achieve, in whole and/or in part, the effect stated by GEMA;⁴³ and/or
 - (d) the Decision was wrong in law.⁴⁴
- (41) This Part summarises the ground of appeal, which is further developed in Part V (Appeal Ground: Ongoing Efficiency) below.

2 Appeal Ground: Ongoing Efficiency

- (42) This Notice of Appeal will demonstrate that GEMA has erred in setting the OE figure at 1%. This decision was wrong for the following reasons:
- (a) **Error 1:** An OE parameter of 1% is not compatible with the evidence of the UK's sustained and ongoing structural productivity weakness;
 - (i) **Error 1A:** GEMA mistakenly and erroneously relied upon the OBR's labour productivity growth forecast (i.e. output per hour) instead of total factor productivity ("TFP") growth forecasts; and
 - (ii) **Error 1B:** GEMA erred in concluding that having regard to the latest OBR forecast requires in-period adjustments;
 - (b) **Error 2:** GEMA's assertion that energy networks are "*insulated*" from and can "*outperform*" the economy-wide slowdown in productivity is un evidenced and flawed;
 - (c) **Error 3:** GEMA inappropriately relied on a single piece of evidence (NGET's 0.7% business plan assumption) as an absolute floor on its OE assessment and disregarded other relevant evidence; and
 - (d) **Error 4:** GEMA relied on qualitative factors in support of its OE figure that are unsubstantiated and/or spurious.

3 Legal consequences

- (43) The Decision was wrong on the following grounds:

⁴¹ GA86, sections 23D(4)(a) and (b).

⁴² GA86, section 23D(4)(c).

⁴³ GA86, section 23D(4)(d).

⁴⁴ GA86, section 23D(4)(e).

- (a) By reaching an irrational and unjustifiable conclusion which is not supported by the available evidence; failing to provide adequate reasons for dismissing, or affording inadequate weight to evidence that supports a less stretching OE figure (including, but not limited to, the compelling evidence of the UK's sustained and ongoing structural productivity weakness); and/or relying on erroneous or unsubstantiated assertions, assumptions and evidence in favour of its chosen efficiency parameter, GEMA has:
- (i) erred, wholly or partly in fact (section 23D(4)(c) GA86), and in law (section 23D(4)(e) GA86) (by acting irrationally, disproportionately, unfairly and/or in defiance of logic, failing properly to inquire, reaching conclusions without adequate supporting evidence, and/or making mathematical or formula specification errors); and
 - (ii) failed under sections 23D(4)(a) and (b) GA86 properly to have regard to and/or give appropriate weight to its duty under section 4AA(5A) GA86 to have regard to the principles of best regulatory practice under which regulatory activities should be transparent, accountable and consistent.
- (b) By imposing an arbitrarily high OE figure which is not compatible with, or supported by, the evidence of the UK's sustained and ongoing structural productivity weakness, GEMA has failed under sections 23D(4)(a) and (b) GA86 to properly have regard to and/or give appropriate weight to its principal objective under section 4AA(1) GA86 and its statutory duties to:
- (i) have regard to the need to secure that licence holders are able to finance their licensed activities under section 4AA(2)(b) GA86, given that the level of cost allowances set by GEMA undermines the Appellant's ability to recover its efficient costs;
 - (ii) act in a manner best calculated to promote efficiency and economy (under section 4AA(5)(a) GA86); and
 - (iii) have regard to the need to secure a diverse and viable long-term supply of gas (under section 4AA(2) GA86).
- (c) The OE figure failed to achieve its stated effect within the meaning of section 23D(4)(d) of GA86 of setting an efficiency parameter to reflect the productivity improvements that it considers even the most efficient company can achieve.⁴⁵

4 Relief Sought

- (44) The Appellant seeks leave to appeal the Decision.
- (45) If permission is granted, the Appellant requests that the CMA quashes the Decision under section 23E(2)(a) GA86 and substitutes its own decision to the extent necessary to remedy the errors in the Decision. The specific relief sought is explained in the remainder of this Notice.⁴⁶
- (46) The Appellant requests that the CMA quashes the Decision and substitutes its own, which the Appellant submits should be an OE target significantly lower than 1%. The Appellant considers that the OE figure should be 0.5% as per the OE figure in NGN's Business Plan and within the top end of the -0.1% to 0.7% range that Frontier Economics assesses in the Ongoing Efficiency Report.⁴⁷ The Appellant believes that this represents a stretching but realistic OE figure, which is commensurate with the available evidence, as explained further in the First Witness Statement of Dean Pearson.

⁴⁵ GEMA, [RIIO-3 FD Overview](#), paragraph 8.20 (NGNNOA1_032).

⁴⁶ Part V (Appeal Ground: Ongoing Efficiency).

⁴⁷ [NGN Business Plan 2026 – 2031](#), page 73 (NGNNOA1_015).

- (47) The changes to the Appellant's licence conditions needed to effect these changes are considered at Annex III (Relief).

5 The facts and reasons supporting the appeal

- (48) The grounds of this appeal, reasons and supporting evidence are contained in this Notice, Exhibit NGNNOA1 and the Witness Statements and Exhibits to the Witness Statements.
- (49) The Appellant has endeavoured to provide all facts, reasons, documentary evidence and witness statements with this Notice. If permission to appeal is granted, however, it may be necessary for the Appellant to provide further material, particularly following receipt of GEMA's response and any disclosure.

PART IV STATUTORY FRAMEWORK

1 Overview

- (50) In this Part IV, the Appellant identifies the statutory framework that governs this appeal under GA86 and, in particular:
- (a) the statutory grounds of appeal to the CMA;
 - (b) the standard of review to be applied by the CMA in this appeal;
 - (c) the materiality threshold that applies to this appeal; and
 - (d) the relief sought.

2 Statutory grounds of appeal

- (51) Under section 23B(1) GA86, an appeal against GEMA's licence modification decision adopted under section 23 GA86 is made by way of an application to the CMA. Section 23D(4) GA86 provides that the CMA may only allow the appeal if it is satisfied that the decision appealed against was wrong on one (or more) of the statutory grounds in sub-sections (4)(a)-(e). These grounds are described below.

2.1 Section 23D(4)(a): GEMA failed properly to have regard to any matter in section 23D(2) GA86

- (52) The matters listed in section 23D(2) GA86 are the matters to which GEMA must have regard:

- “(a) in the carrying out of its principal objective under section 4AA;*
- (b) in the performance of its duties under that section; and*
- (c) in the performance of its duties under sections 4AB and 4A.”*

- (53) The Appellant submits that the CMA must allow this appeal because GEMA has failed to properly have regard to one (or more) of its obligations.

2.1.1 The principal objective under section 4AA

- (54) Under section 4AA(1) GA86, GEMA's principal objective in carrying out its functions under Part 1 GA86 (which includes GEMA's licence modifications function under section 23 GA86) is to *“protect the interests of existing and future consumers in relation to gas conveyed through pipes”*.
- (55) Section 4AA(1A) GA86⁴⁸ clarifies that the *“interests of existing and future consumers are their interests taken as a whole, including [...]:*
- (b) their interests in the security of the supply of gas to them; and*
 - (c) their interests in the fulfilment by [GEMA], when carrying out its designated regulatory functions, of the designated regulatory objectives.”*
- (56) Section 4AA(5B) GA86 defines the *“designated regulatory objectives”* as the objectives set out in Article 40(c) to (h) of the Gas Directive,⁴⁹ but read with certain modifications. In particular, under Article 40 of the Gas Directive, as modified by section 4AA(5B) GA86, GEMA is obliged to take all reasonable measures to pursue, among others, the following objectives:

⁴⁸ As amended by regulation 8 of The Electricity and Gas etc. (Amendment etc.) (EU Exit) Regulations 2019, S.I. 2019/530.

⁴⁹ Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning rules for the internal market in natural gas and repealing Directive 2003/55/EC OJ [2009] L211/94 (the **“Gas Directive”**). The provisions of the Gas Directive constitute EU retained law, in accordance with the terms of the European Union (Withdrawal) Act 2018.

- (d) *helping to achieve, in the most cost-effective way, the development of secure, reliable and efficient non-discriminatory systems that are consumer oriented, and promoting system adequacy and energy efficiency as well as the integration of large and small scale production of gas from renewable energy sources and distributed production in both transmission and distribution networks; [...]*
- (f) *ensuring that system operators and system users are granted appropriate incentives, in both the short and the long term, to increase efficiencies in system performance;*
- (g) *ensuring that customers benefit through the efficient functioning of the energy market in Great Britain, promoting effective competition and helping to ensure consumer protection”.*
- (57) In previous cases, the Competition Commission (“**CC**”) has interpreted GEMA’s additional objectives under the Gas Directive as being *“part and parcel of an overall objective to further the interests of consumers”*.⁵⁰
- (58) Sections 4AA(1B) and (2) GA86 provide a series of specific duties with which GEMA must comply in relation to its principal objective, and sections 4AA(1C) and (3) GA86 provide a series of considerations to which GEMA must have regard in performing those duties. More specifically, under section 4AA(1B) GA86, GEMA is required to carry out its functions under GA86 in a manner which it considers *“is best calculated to further the principal objective, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes”*.
- (59) Before deciding to carry out its functions in a particular manner with a view to promoting competition, section 4AA(1C) GA86 requires GEMA to consider:
- (a) *to what extent the interests of [existing and future] consumers would be protected by that manner of carrying out those functions; and*
- (b) *whether there is any other manner (whether or not it would promote competition) in which [GEMA] could carry out those functions which would better protect those interests”*.
- (60) The Appellant considers the Decision to be inconsistent with the principal objective of GEMA. In order to protect the long-term interests of consumers, it is critical that GEMA’s decision making reflects the economic reality facing GDNs and the evidence available before it. GEMA’s unsubstantiated and flawed approach to setting the OE figure risks underfunding GDNs at RIIO-GD3, which will impact on the ability to deliver the outputs and service quality needed by consumers.

2.1.2 The Net Zero Duty

- (61) In October 2023, the Energy Act 2023 introduced a statutory net zero duty. This legislative change amended the definition of the “consumer interests” (under section 4AA GA86) to include the interests in the UK Government’s compliance with its net zero target by 2050 and five-year carbon budgets (as set out in sections 1 and 4(1) of the Climate Change Act 2008). This means that GEMA must consider how to assist with meeting these targets while protecting the interests of existing and future consumers.⁵¹

2.1.3 The Growth Duty

- (62) Section 108(1) of the Deregulation Act 2015 established a “Growth Duty”, whereby regulators exercising functions within the scope of the Act must *“have regard to the desirability of promoting economic growth”*. Under section 108(2), the regulator performing this duty *“must, in particular, consider the importance for the promotion of economic growth of exercising the regulatory function in a way which ensures that –*

⁵⁰ CC, [Northern Ireland Electricity Limited Price Determination](#) (26 March 2014), paragraph 11 (NGNNOA1_042).

⁵¹ GEMA, [Ofgem welcomes Energy Act getting Royal Assent](#) (26 October 2023) (NGNNOA1_053).

- (a) *regulatory action is taken only when it is needed; and*
- (b) *any action taken is proportionate*".

- (63) In May 2024, the Growth Duty was extended to include GEMA. While it does not displace the principal objective, GEMA is now required to have regard to the promotion of sustainable economic growth through its regulatory activities. As stated by GEMA, while its principal duty is to protect the interests of current and future gas consumers, GEMA's decisions also consider broader statutory duties, "*including having regard to promoting economic growth and regard to the need to secure that efficient network companies can finance their regulated activities*".⁵²
- (64) Consequently, in determining this appeal, the CMA must consider if, in making the Decision, GEMA had proper regard to its principal objective to protect the interests of existing and future consumers, wherever appropriate by promoting economic growth.

2.1.4 The need to secure that all reasonable demands for gas are met

- (65) As set out above, under section 4AA(2) GA86, GEMA has a number of additional obligations with which it must comply in relation to its principal objective. As recognised by the CMA, GEMA must have regard to these additional obligations when performing its statutory duties to further its principal objective.⁵³
- (66) In carrying out its regulatory functions, under section 4AA(2)(a) GA86, GEMA must have regard to "*the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met*".
- (67) The Appellant submits that this obligation involves not only the availability of gas from producers and distributors, but also the need to secure that all reasonable demands for gas are delivered to an appropriate standard of service by generators and distributors.

2.1.5 The need to secure that licence holders are able to finance their regulated activities

- (68) In carrying out its regulatory functions, GEMA must also have regard to "*the need to secure that licence holders are able to finance the activities which are the subject of obligations imposed by or under this Part, the Utilities Act 2000, Part 5 of the Energy Act 2008 or section 4, Part 2, sections 26 to 29 of the Energy Act 2010, or Chapter 1 of Part 2, Chapters 2 and 3 of Part 4 and sections 245 to 247 of the Energy Act 2023*" (the "**Financing Duty**").⁵⁴
- (69) The Joint Regulators Group report summarises the Financing Duty as follows: "*In setting price controls, regulators should have regard to the ability of efficient companies to secure financing in a timely way and at a reasonable cost in order to facilitate the delivery of their regulatory obligations. However, regulators have to balance this consideration with the need to protect consumers and constrain the returns provided by the regulatory framework, and to avoid encouraging inefficiency or rescuing a company that has encountered financial distress as a result of its own decisions.*"⁵⁵
- (70) In *Wales & West Utilities v CMA*, the High Court recently clarified that the Financing Duty requires regard to be had for the need of each licence holder to be able to finance its activities, and not merely the ability of the licence holders as a collective or group.⁵⁶ The Court ruled that it would be "*difficult to see*" how the interests of existing and future consumers could be protected without considering the interests of

⁵² GEMA, [RIIO-3 DD Overview](#), paragraph 1.8 (NGNNOA1_022).

⁵³ CMA, [RIIO-2 ELM Appeals, FD Volume 1](#), paragraphs 3.6-3.14 (NGNNOA1_051).

⁵⁴ GA86, section 4AA(2)(b).

⁵⁵ Joint Regulators Group, [Report on Cost of Capital and Financeability](#) (March 2013), page 10 (NGNNOA1_041).

⁵⁶ *Wales & West Utilities v CMA*, [161] (NGNNOA1_063).

each licence holder to be able to finance its activities.⁵⁷ It is also open to GEMA to use a “*notional efficient licensee*” as a general benchmark.⁵⁸

- (71) The Appellant submits that GEMA has failed under sections 23D(4)(a) and (b) GA86 properly to have regard to and/or give appropriate weight to its duty under section 4AA(2)(b) GA86 to have regard to the Financing Duty given that by setting an OE level that is not commensurate with the economic evidence it underfunds the Appellant’s efficient costs.

2.1.6 Promoting efficiency and economy

- (72) Subject to the above duties, as well as the duty under section 132(2) Energy Act 2013 to carry out functions in the manner best calculated to further the delivery of policy outcomes, GEMA must carry out its regulatory functions in “*the manner which it considers is best calculated –*
- (a) *to promote efficiency and economy on the part of persons authorised by licences or exemptions to carry on any activity, and the efficient use of gas conveyed through pipes; [...]* and
- (c) *to secure a diverse and viable long-term energy supply [...]*.”⁵⁹

- (73) In practice, this translates into ensuring that incentives for GDNs are in place to promote such efficiency. In setting an unrealistic OE figure which is not compatible with, or supported by, the evidence and forecasts of the UK’s sustained and ongoing structural productivity weakness, and creating the risk of underfunding at RII0-GD3, GEMA has failed to properly incentivise GDNs to promote efficiency and long-term investment. GEMA has therefore failed under sections 23D(4)(a) and (b) GA86 properly to have regard to and/or give appropriate weight to its duty under section 4AA(5) GA86 to carry out its functions in a manner that promotes efficiency and economy and secures a diverse and viable long-term energy supply.

2.1.7 Best regulatory practice

- (74) Finally, section 4AA(5A) GA86 provides that, in performing its duties, GEMA must have regard to:
- “(a) *the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed; and*
- (b) *any other principle appearing to it to represent the best regulatory practice.*”
- (75) The Better Regulation Task Force has defined these five principles of good regulation as follows:⁶⁰
- (a) **Transparency:** Regulators should be open and keep regulations simple and user-friendly. This principle includes that effective consultation must take place before proposals are developed, to ensure that stakeholders’ views and expertise are taken into account.
- (b) **Accountability:** Regulators must be able to justify decisions and be subject to public scrutiny. This principle includes that there should be well-publicised, accessible, fair and effective complaints and appeals procedures.
- (c) **Proportionality:** Regulators should only intervene when necessary. Remedies should be appropriate to the risk posed, and costs identified and minimised. This principle includes that all the alternative options for achieving policy objectives must be considered – not just prescriptive regulation – given alternatives may be more effective and cheaper to apply.

⁵⁷ *Wales & West Utilities v CMA*, [167] (NGNNOA1_063).

⁵⁸ *Wales & West Utilities v CMA*, [168] (NGNNOA1_063).

⁵⁹ GA86, section 4AA(5).

⁶⁰ Better Regulation Task Force, *Regulation – Less is More* (March 2005), page 11 and Annex B (NGNNOA1_056).

- (d) Consistency: Government rules and standards must be joined up and implemented fairly. This principle includes that regulation should be predictable in order to give stability and certainty to those being regulated.
- (e) Targeting: Regulation should be focused on the problem and minimise side effects. This principle includes that regulations should be systematically reviewed to test whether they are still necessary and effective. If not, they should be modified or eliminated.⁶¹

(76) Further background and context to these principles is provided in the publication of the Department for Business, Energy & Industrial Strategy's "*Principles for Economic Regulation*" (2011) and the "*Economic regulation policy paper*" (2022).⁶²

(77) The Appellant submits that, (i) in setting an OE parameter which is not compatible with, or supported by, the economy-wide evidence and forecasts of the UK's sustained and ongoing structural productivity weakness (and further, in making the material errors set out at Errors 2 – 4 in Part V), and (ii) failing to provide adequate reasons for dismissing or affording inadequate weight to evidence properly supporting a lower OE level, GEMA has failed under sections 23D(4)(a) and (b) GA86 properly to have regard to and/or give appropriate weight to its duty under section 4AA(5A) GA86 to have regard to the principles of best regulatory practice under which regulatory activities should be transparent, accountable and consistent.

2.2 Section 23D(4)(b): GEMA failed to give the appropriate weight to any of its obligations

(78) This ground of appeal is made out if GEMA gives insufficient, undue or excessive weight to any of its obligations listed above. In *E.ON*, the CC interpreted this ground as follows:

*"Section 175(4)(c) provides that a decision may be wrong on the grounds that GEMA failed to give the appropriate weight to one or more of the matters or purposes referred to in subparagraphs (a) and (b). Subparagraph (c) is therefore concerned with the weight given by GEMA to the relevant matters and purposes."*⁶³

(79) The Appellant considers GEMA has failed to give appropriate weight to its principal objective, for the reasons set out in paragraph (60) above.

2.3 Section 23D(4)(c): GEMA's decision was based, wholly or partly, on an error of fact

(80) This ground is made out if GEMA's decision is wrong as a matter of fact: i.e. that GEMA has made a factual error and that error materially affected its decision.

(81) In *Wales & West Utilities v CMA*, the High Court explained that this ground will be made out if the test in *E v Secretary of State for the Home Department* is satisfied:

*"First, there must have been a mistake as to an existing fact, including a mistake as to the availability of evidence on a particular matter. Secondly, the fact or evidence must have been "established" in the sense that it was uncontentious and objectively verifiable. Thirdly, the appellant (or his advisers) must not have been responsible for the mistake. Fourthly, the mistake must have played a material (not necessarily decisive) part in the tribunal's reasoning."*⁶⁴

(82) In *E.ON*, the CC noted that it would exercise its jurisdiction in respect of factual errors where it concludes that GEMA has based its decision on a plain error of fact.⁶⁵

⁶¹ *Ibid.*, Annex B (The Five Principles of Good Regulation).

⁶² BIS, *Principles for Economic Regulation* (April 2011) (NGNNOA1_057) and BEIS, *Economic regulation policy paper* (January 2022) (NGNNOA1_058).

⁶³ CC, *E.ON UK plc v GEMA – Decision and Order* (10 July 2007) ("*E.ON*"), paragraph 7.16 (NGNNOA1_039).

⁶⁴ *Wales & West Utilities v CMA*, [142] (NGNNOA1_063).

⁶⁵ *E.ON*, paragraph 5.16 (NGNNOA1_039).

- (83) The Appellant considers GEMA has erred, wholly or partly, in fact (and, indeed, in law) by setting an OE parameter which is simply not compatible with, or supported by, economy-wide evidence/forecasts including, *inter alia*, by:
- (a) Placing insufficient weight on relevant evidence in relation to the UK economy-wide productivity slowdown and disregarding GEMA's own experts', Grant Thornton's, estimate of productivity growth in comparator sectors over the period 2008-2019;
 - (b) Relying on an unsubstantiated and flawed assertion that network companies are "*insulated*" from and can "*outperform*" the economy-wide slowdown;
 - (c) Concluding that (i) the OBR's November 2025 productivity forecasts supported its OE figure of 1%; and (ii) that accounting for the OBR's productivity forecasts would require in-period adjustments;
 - (d) Relying on NGET's business plan OE figure of 0.7% to conclude that this was the absolute minimum level of OE for the sector which could be supported by the evidence; and
 - (e) Relying on unsubstantiated and flawed qualitative factors in favour of its OE figure.

2.4 Section 23D(4)(d): The licence modifications fail to achieve, in whole or in part, the effect stated by GEMA

- (84) Under section 23(7)(b) GA86, GEMA must include in its licence modification decision a statement of the effect of the modifications.
- (85) In the *BGT Determination*,⁶⁶ the CMA, in assessing the effect GEMA had intended by its licence modification decision in relation to setting a particular incentive mechanism, took into account the following factors, which were considered as sufficient to inform GEMA's policy and hence its intended effect:
- (a) GEMA's policy statements and explanations during the RIIO-ED1 price control, including at the strategy consultation, draft and final determination stages;
 - (b) GEMA's responses to consultees in relation to its policy statements; and
 - (c) evidence given by GEMA at a CMA oral hearing.
- (86) In *Wales & West Utilities v CMA*, the High Court noted that this ground requires the CMA to determine whether, in fact, the effect was achieved as outlined by GEMA, and that in certain circumstances this would require the CMA to carry out its own investigation.⁶⁷
- (87) GEMA's aim for the RIIO-3 price controls is to "*make the system work better for consumers, maintain robust controls on prices and bills, set incentives that drive the right outcomes, and ensure the essential investment needed to safeguard critical network infrastructure is made at the right time and delivers demonstrable value for all consumers that depend on it*".⁶⁸
- (88) For the reasons explained in Part V (Appeal Ground: Ongoing Efficiency) below, GEMA has erred by basing the 1% OE figure on unsubstantiated and flawed assertions. In doing so, GEMA fails to incentivise efficiency, and risks underfunding GDNs at RIIO-GD3 and jeopardising long-term sustainable investment. The Appellant submits that the intended effect for the RIIO-GD3 price controls, namely ensuring essential investment to safeguard network infrastructure and delivering value to consumers, will not be achieved by the 1% OE figure.

⁶⁶ CMA, *British Gas Trading Limited Final Determination* (29 September 2015) ("*BGT Determination*") (NGNNOA1_043).

⁶⁷ *Wales & West Utilities v CMA*, [143] (NGNNOA1_063).

⁶⁸ GEMA, *RIIO-3 FD Overview*, page 7 (NGNNOA1_032).

2.5 Section 23D(4)(e): GEMA's decision was wrong in law

- (89) This ground of appeal is made out if GEMA has misdirected itself as to its obligations in making its licence modification decision or as to the application of the relevant law. In *E.ON*, the CC held that the wording “*wrong in law*” also includes the public law concept of procedural unfairness/breach of natural justice.⁶⁹
- (90) Determining whether GEMA's decision was wrong in law will involve assessing “*whether there has been an error in construction, or whether GEMA has reached a conclusion that was irrational: including whether GEMA reached a conclusion that was not open to it on the evidence*”.⁷⁰
- (91) Further, irrationality will constitute an error in law. This ground arises if a decision “*is so unreasonable that no reasonable authority could ever have come to it*”⁷¹ and specifically if a decision is “*so outrageous in its defiance of logic or of accepted moral standards that no sensible person who had applied his mind to the question to be decided could have arrived at it*”.⁷² Irrationality may also be established if, in reaching its decision, the decision-maker took into account irrelevant matters, or failed to consider relevant matters.⁷³ This arises if “*there is a demonstrable flaw in the reasoning which led to it – for example, that significant reliance was placed on an irrelevant consideration, or that there was no evidence to support an important step in the reasoning, or that the reasoning involved a serious logical or methodological error*”.⁷⁴
- (92) The Appellant considers GEMA has erred, wholly or partly, in law (and, indeed, in fact) by reaching an unjustifiable and irrational OE figure which is simply not compatible with, or supported by, the relevant economic analysis, including by acting irrationally and not having due regard to the evidence *inter alia* by:
- (a) Failing to have due regard to economy-wide evidence/forecasts in relation to the UK economy-wide productivity slowdown;
 - (b) Placing insufficient weight on Grant Thornton's estimate of productivity growth in comparator sectors over the period 2008-2019;
 - (c) Relying on an unsubstantiated and incorrect assertion that network companies can outperform the wider economy to support its chosen OE figure;
 - (d) Disregarding relevant evidence (including from its own consultants) without adequate justification based on a single piece of evidence (namely the OE figure in NGET's business plan); and
 - (e) Relying on unsubstantiated and flawed qualitative factors in favour of its OE figure.

2.6 Standard of review

- (93) Under section 23D(4) GA86, the CMA may allow an appeal only to the extent it is satisfied that the decision appealed against was “wrong” on one or more of the grounds described above.
- (94) In the RIIO-2 ELM Appeals, the CMA considered the standard of review to be a consideration of the merits of the decision under appeal, provided this was within the confines of the specific statutory

⁶⁹ *E.ON*, paragraph 5.18 (NGNNOA1_039).

⁷⁰ *Wales & West Utilities v CMA*, [144] (NGNNOA1_063).

⁷¹ *Associated Provincial Picture Houses Ltd v Wednesbury Corporation* [1948] 1 K.B. 223 (NGNNOA1_059).

⁷² *Council of Civil Service Unions v Minister for the Civil Service* [1985] A.C. 374 (NGNNOA1_060).

⁷³ *Tesco Stores Ltd v Secretary of State for the Environment* [1995] 1 W.L.R. 759 (NGNNOA1_061).

⁷⁴ *R (on the application of the Law Society) v Lord Chancellor* [2019] 1 W.L.R. 1649, [98] (NGNNOA1_062).

grounds of appeal laid down in applicable statute. Accordingly, the CMA's role in regulatory appeals is distinguishable from, and not limited to, the standard traditional judicial review grounds.⁷⁵

- (95) The CMA has confirmed that it has the power to make "*certain factual judgments*"⁷⁶ and should not limit itself to considerations of errors of law or judicial review. Nonetheless, the CMA should limit itself to the grounds raised by the appellant and refrain from undertaking a re-run of GEMA's original decision-making process or holding a *de novo* rehearing of all the evidence.⁷⁷
- (96) In respect of sections 23D(4)(a) and (b) GA86, the High Court in *Wales & West Utilities v CMA* confirmed that the statutory language of these sections "*calls for the CMA to make its own assessment as to what is "proper" regard and "appropriate" weight*".⁷⁸ The High Court further commented that the CMA's starting point will be to consider the adequacy of GEMA's chosen approach (as opposed to considering the approach which the CMA might have chosen if it were in GEMA's position).⁷⁹
- (97) Significantly, when considering the threshold for evaluating GEMA's approach against that of reasonable alternatives, the High Court rejected the contention that the alternative approach would need to be "*clearly superior*" – citing a risk that this would lead to too high a hurdle. The Court considered that: "*what is required is that the alternative approach is "materially" better than GEMA's approach: that is, the alternative approach is one which, weighing up the pros and cons of the different approaches, offers something more than GEMA's approach*" (emphasis in original).⁸⁰
- (98) The Appellant submits that GEMA setting a 1% OE figure for RIIO-GD3 where there is simply not the evidence to support it in the context of the UK's sustained and ongoing structural productivity weakness is not within any reasonable margin of appreciation of regulatory judgement: the Appellant submits (using an analogous approach to the High Court in *Wales & West Utilities v CMA* for s23D(4)(a) and (b) GA86), that a "*materially better*" alternative approach would be to recognise the errors identified in this Notice of Appeal.
- (99) In any case, as the CMA has recognised in the RIIO-2 ELM Appeals, if it determines that a decision is based on a plain error of fact or is wrong in law (as contended by the Appellant), there is no room to afford GEMA a margin of appreciation and the CMA must make its own decision as to what was the correct conclusion, without showing deference to GEMA's reasoning or regulatory discretion.⁸¹

2.7 Materiality

- (100) Even in circumstances where the CMA concludes that there has been an error in GEMA's decision-making process, it may nonetheless conclude that the error was not material, and therefore the relevant element of the Decision was not "wrong".
- (101) Whilst there is no statutory definition of "materiality", the CMA and the CC have provided helpful guidance as to what constitutes a "material error", which should be assessed on a case-by-case basis:
- (a) "*Whether an error is material must be decided on a case-by-case basis taking into account the particular circumstances of each case. Relevant factors would include the impact of the error on the overall price control, whether the cost of addressing the error would be disproportionate to the value of the error, whether the error is likely to have an effect on future price controls, and*

⁷⁵ CMA, *RIIO-2 ELM Appeals, FD Volume 1*, paragraphs 3.31-3.32 (NGNNOA1_051).

⁷⁶ CMA, *BGT Determination*, paragraph 3.41 (NGNNOA1_043); *Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) plc Final Determination* (29 September 2015) ("**NPG Determination**"), paragraph 3.40 (NGNNOA1_044).

⁷⁷ CMA, *RIIO-2 ELM Appeals, FD Volume 1*, paragraph 3.31 (NGNNOA1_051).

⁷⁸ *Wales & West Utilities v CMA*, [151] (NGNNOA1_063)

⁷⁹ *Wales & West Utilities v CMA*, [154]-[155] (NGNNOA1_063)

⁸⁰ *Wales & West Utilities v CMA*, [154]-[158] (NGNNOA1_063).

⁸¹ CMA, *RIIO-2 ELM Appeals, FD Volume 1*, paragraph 3.71-3.72 (NGNNOA1_051).

*whether the error relates to a matter of economic or regulatory principle. This list is not intended to be exhaustive.*⁸²

(b) “An error will not be a material error where it only has an insignificant or negligible impact in relative terms on the overall level of price control that has been set by GEMA”.⁸³

(102) In the RII0-2 FD, the CMA concluded that it could consider, where appropriate, whether “*the cumulative effect of immaterial errors could have a highly significant impact on the price control*”.⁸⁴

(103) The Appellant has estimated the effect of GEMA’s errors to be £42.7 million.⁸⁵ The Appellant submits that the errors identified in its appeal are not only of significant value but also relate to matters of economic and regulatory principle that are likely to have considerable effect on future price controls. Therefore, the Appellant submits that the materiality threshold applicable to this appeal is satisfied.

3 Relief sought

(104) The Notice of Appeal must state, among other things, (i) the grounds of appeal on which the appellant wishes to rely; and (ii) the relief sought and any directions necessary to give effect to that relief.⁸⁶

(105) As supported by the CMA’s past decisional practice, the grounds of appeal are treated separately from the question of the relief sought. If permission to appeal is granted, the CMA must consider whether or not to allow the appeal by reference to the grounds of appeal advanced.⁸⁷ The relief to be sought only falls for consideration if and when the appeal has been allowed.

(106) If the appeal is allowed, the CMA must do one or more of the following:

(i) quash the decision (to the extent that the appeal is allowed);

(ii) remit the matter back to GEMA for reconsideration and determination in accordance with any directions given by the CMA; and/or

(iii) substitute the CMA’s decision for that of GEMA (to the extent that the appeal is allowed) and give any directions to GEMA or any other party to the appeal.⁸⁸

(107) The changes to the Appellant’s licence conditions needed to effect these changes are considered at Annex III (Relief).

⁸² CMA, *NPG Determination*, paragraph 3.58 (NGNNOA1_044); *BGT Determination*, paragraph 3.61 (NGNNOA1_043); *BT Final Determination* (13 June 2016), paragraph 2.35 (NGNNOA1_045).

⁸³ *NPG Determination*, paragraph 3.58 (NGNNOA1_044); *BGT Determination*, paragraph 3.60 (NGNNOA1_043); CMA, *Firmus Energy Final Determination* (26 June 2017), paragraph 3.22 (NGNNOA1_046); CMA, *SONI Final Determination* (10 November 2017) (“*SONI Determination*”), paragraph 3.39 (NGNNOA1_047).

⁸⁴ CMA, *RIIO-2 ELM Appeals, FD Volume 1*, paragraph 3.97 (NGNNOA1_051).

⁸⁵ This reflects the totex impact of 1% compared to NGN’s proposed 0.5% and is based on 2023/2024 prices in GEMA’s allowance file dated 23 February 2026. See GEMA, GD3 Allowances File (NGNNOA1_038).

⁸⁶ CMA70 *Energy Licence Modification Appeals Rules*, rule 5.2.

⁸⁷ GA86, section 23D.

⁸⁸ GA86, section 23E(2).

PART V
APPEAL GROUND: Ongoing Efficiency

1 Overview

- (108) As explained above, the Appellant's Notice of Appeal relates to the material errors made by GEMA in its OE assessment, as set out in the RIIO-3 FD.
- (109) This Section will draw on the Ongoing Efficiency Report and the First Witness Statement of Dean Pearson.
- (110) This Section will demonstrate that, in setting the OE figure at 1%, GEMA has erred on the following bases:
- (a) **Error 1:** An OE parameter of 1% is not compatible with the evidence of the UK's sustained and ongoing structural productivity weakness;
 - (i) **Error 1A:** GEMA mistakenly and erroneously relied upon the OBR's labour productivity growth forecast (i.e. output per hour) instead of TFP growth forecasts; and
 - (ii) **Error 1B:** GEMA erred in concluding that having regard to the latest OBR forecast requires in-period adjustments.
 - (b) **Error 2:** GEMA's assertion that energy networks are "*insulated*" from and can "*outperform*" the economy-wide slowdown is un evidenced and flawed;
 - (c) **Error 3:** GEMA inappropriately relied on a single piece of evidence (NGET's 0.7% business plan assumption) as an absolute floor on its OE assessment and disregarded other relevant evidence; and
 - (d) **Error 4:** GEMA relied on qualitative factors in support of its OE target that are unsubstantiated and/or spurious.
- (111) GEMA's OE figure for the GD sector in the RIIO-3 FD is therefore wrong on the legal grounds set out in Part IV (Statutory Framework) and explained further by reference to the individual errors below.
- (112) The effect of GEMA errors on NGN is £42.7 million.⁸⁹
- (113) The Appellant requests the relief outlined in Section 4.
- (114) The rest of this Part proceeds as follows:
- (a) **Section 2** provides background as to productivity growth; the purpose of OE within a price control; and GEMA's approach and assessment of the OE figure for RIIO-GD3.
 - (b) **Section 3** discusses the errors in GEMA's assessment of the OE figure.
 - (c) **Section 4** sets out the relief sought by the Appellant.

⁸⁹ This reflects the totex impact of 1% compared to NGN's proposed 0.5% and is based on 2023/2024 prices in GEMA's allowance file dated 23 February 2026. See GEMA, GD3 Allowances File (NGNNOA1_038).

2 Background on OE for RIIO-GD3

2.1 The role of ongoing efficiency in a price review

- (115) Under the RIIO-3 framework, GEMA sets totex allowances that reflect the efficient cost of delivering specified work and outputs. GEMA makes two discrete efficiency assumptions when calculating these costs:
- (a) Catch-up efficiency: intended to reflect the extent to which the regulated firm's current level of efficiency falls short of the efficient frontier, and the scope for firm-specific efficiency improvements to close that gap; and
 - (b) Ongoing efficiency: intended to reflect the extent to which the notional "efficiency frontier" can be expected to shift each year. OE is common across firms and arises from exogenous drivers (i.e. improvements in the way in which different inputs to production (capital, labour etc.) are combined to provide more or better outputs).
- (116) Accordingly, OE reflects the expected productivity improvements over the price control period that can be achieved by even the most efficient company in the sector. The OE figure should be reflective of the extent to which productivity improvements affecting all firms are expected to materialise over the price control period.
- (117) Significantly, this is not merely a question of the scope for an individual network company to improve its own efficiency by changing how it operates – that is captured through the catch-up efficiency assessment.

2.2 An explainer on productivity growth

- (118) Measurements of productivity growth – i.e. the change in the ratio of outputs to inputs in a firm, in an industry or across the whole economy – are regarded as a key indicator for medium- and long-term economic forecasts.
- (119) One of the key lenses that economists use to understand productivity growth is TFP growth, which the OBR describes as "*a measure of the efficiency with which labour and capital can be combined in the production process. It is a function of the state of global technology and knowledge, and the degree to which that technology and knowledge is effectively used domestically*".⁹⁰ TFP growth is the benchmark relied on by GEMA for determining the OE figure.⁹¹
- (120) As explained in more detail in Section 3 of the Ongoing Efficiency Report, there is a substantial amount of evidence of the UK's sustained and ongoing structural productivity weakness, now spanning more than 15 years since the GFC in 2008.

2.3 How GEMA set its 1% OE figure at RIIO-3

- (121) Utility regulators have historically determined OE figures for price controls by using benchmark data based on historical rates of productivity growth economy-wide and for sectors within which the "nature of work" shows similar characteristics to regulated energy networks. These benchmarks can be taken to reflect a proxy for what has broadly been achieved in competitive markets. As explained in further detail in the Ongoing Efficiency Report, in recent price reviews regulators have used TFP data from an EU KLEMS dataset to inform the benchmark used to set OE.
- (122) In previous price controls, GEMA has approached its OE assessment by:

⁹⁰ OBR, [Briefing paper No.9 Forecasting productivity – November 2025](#) (26 November 2025), paragraph 2.1 (NGNNOA1_066).

⁹¹ Grant Thornton, [First Independent Report](#), page 13 (NGNNOA1_026).

- (a) Building a range of OE estimates from benchmarking of productivity data (e.g. using EU KLEMS data); and
 - (b) Selecting a point from within the estimated range, sometimes with further post-benchmarking adjustments to the OE estimate derived from the benchmarking exercise.⁹²
- (123) The four GDNs and the National Gas Transmission jointly commissioned an independent report from Economics Insight. The report, published on 13 May 2024, concluded that the OE for gas networks at RIIO-3 was highly likely to be within the range of 0.2% and 0.8% (the midpoint being 0.5%). The report's findings took into consideration the broader observable trends in the UK economy and productivity performance, namely:
- (a) Productivity growth in the UK has been flat since the 2008 GFC, and the forecasts from institutions such as the BoE, ONS, and HM Treasury were all signalling that this slowdown in productivity growth was likely to continue.⁹³
 - (b) The main causal factors for this slump in productivity growth were insufficiency of investment, infrastructure quality, human capital quality, and management quality. These issues were largely economy-wide, and the evidence suggested they were unlikely to fully unwind over the RIIO-3 period.⁹⁴
 - (c) There is no evidence to suggest that regulated industries are insulated from these observed trends, nor any strong reasons to believe that regulation would mitigate the impact of these factors on gas networks.⁹⁵
- (124) In its SSMD dated 18 July 2024, GEMA stated that it intended to use a wide range of evidence for setting its OE figure including, *inter alia*, the EU KLEMS database, network companies' historical performance, and forward-looking productivity forecasts for the UK economy. GEMA stated that it "*will consider whether the ongoing efficiency assumption of 1% per annum at the totex level implemented in RIIO-2 is still a reasonable starting point for RIIO-3*".⁹⁶
- (125) In December 2024, GEMA received OE proposals from gas and electricity companies as part of their business plans. All gas companies (the four GDNs and National Gas Transmission) proposed an OE figure of 0.5% per annum for totex. For electricity companies, NGET proposed an OE of 0.7% per annum, while SPT and SHET proposed 0.5% and 0.2% per annum, respectively. The First Witness Statement from Dean Pearson explains the basis on which NGN included its 0.5% OE figure.⁹⁷ All four GDNs and NGT jointly commissioned an independent report from Economic Insight, which informed the OE figures in their respective business plans.
- (126) GEMA took the following steps in setting OE at 1% in the RIIO-3 DD:
- (a) In setting the OE range at RIIO-3, GEMA's starting point was the 1% OE figure that it set at RIIO-2, rather than approaching the analysis *de novo* at RIIO-3 (consistent with the method used in previous price controls). GEMA asked Grant Thornton to specifically consider whether the initial starting point proposed for OE of 1% in the SSMDs is consistent with the range of evidence.⁹⁸

⁹² Economic Insight, [Ongoing Efficiency for Gas Networks at RIIO-3](#) (13 May 2024), page 6 (NGNNOA1_016).

⁹³ Economic Insight, [Ongoing Efficiency for Gas Networks at RIIO-3](#) (13 May 2024), pages 36-41 (NGNNOA1_016).

⁹⁴ Economic Insight, [Ongoing Efficiency for Gas Networks at RIIO-3](#) (13 May 2024), page 11 (NGNNOA1_016).

⁹⁵ Economic Insight, [Ongoing Efficiency for Gas Networks at RIIO-3](#) (13 May 2024), page 11 (NGNNOA1_016).

⁹⁶ GEMA, [RIIO-3 SSMD – Overview Document](#), paragraph 9.31 (NGNNOA1_012).

⁹⁷ DP1, Section V.

⁹⁸ Grant Thornton, [First Independent Report](#), page 3 (NGNNOA1_026).

- (b) Grant Thornton's First Independent Report identified that the OE falls in the range 0.1% to 1.3%.⁹⁹
- (c) Using this starting point, GEMA determined a "plausible" OE range of 0.7% to 1.3% by redefining the lower bound to 0.7% and retaining the upper bound at 1.3%. The lower bound figure was based on GEMA's view that regulated companies have an incentive to 'aim down' when proposing an OE figure, and all companies should be able to at least match the most ambitious OE proposal submitted, which was 0.7% by NGET.¹⁰⁰
- (127) All gas and electricity network companies disagreed with GEMA's proposed OE figure of 1% at RIIO-3 DD stage, arguing *inter alia* that GEMA had (i) downplayed the recent productivity decline in the wider UK economy; (ii) incorrectly relied on NGET's 0.7% business plan assumption to set the lower bound of its plausible range; and (iii) GEMA had erred in a number of the qualitative factors that it cited in support of its OE figure of 1%.¹⁰¹
- (128) The OE figure was ultimately set in the RIIO-3 FD at 1%. GEMA reached this position by considering a range of factors, which are summarised below:¹⁰²
- (a) **Challenge and incentive to outperform:** GEMA considered it important "*in the absence of competition, that monopolistic network companies are strongly challenged to continue driving cost efficiency through their business over time*". Setting a "*stretching but achievable*" OE figure at 1% was seen as consistent with setting "*a high level of ambition*" for network companies to operate efficiently through cost savings and implementing innovative new approaches to running their businesses.¹⁰³
- (b) **Independent productivity forecasts:** Independent forecasts of economy-wide productivity trends over the RIIO-3 period were seen as informative of the direction of wider trends. However, GEMA considered that OE should not be explicitly linked to these forecasts, as this would lead to an uncertain and unstable regulatory framework.¹⁰⁴
- (c) **Potential to outperform UK economy:** GEMA considered that regulated network companies were not fully impacted by wider productivity slowdowns and that there was strong potential for network companies to outperform the average economy-wide level for productivity improvements.¹⁰⁵
- (d) **Anticipated technological change:** The funding requests from companies for RIIO-3 demonstrated a strong ambition to deliver technological change through their IT&T and D&D activities. Given the funding for DPLA and ALD technologies, GEMA considered there was a significant opportunity to drive efficiency improvements.¹⁰⁶
- (e) **Historical innovation funding:** GEMA considered it was reasonable to expect that the historical customer-funded innovation funding in previous price controls would give rise to productivity benefits in RIIO-3, and that investments in innovative new technologies would offer significant potential for productivity improvements in RIIO-3.¹⁰⁷

⁹⁹ GEMA, [RIIO-3 DD Overview](#), paragraph 8.28 (NGNNOA1_022).

¹⁰⁰ GEMA, [RIIO-3 DD Overview](#), paragraphs 8.29-8.30 (NGNNOA1_022).

¹⁰¹ GEMA, [RIIO-3 FD Overview](#), paragraph 8.41 (NGNNOA1_032).

¹⁰² The Ongoing Efficiency Report provides further detail on GEMA's final determination on OE for RIIO-GD3 at Section 2.4 (exhibited at MR1_1).

¹⁰³ GEMA, [RIIO-3 FD Overview](#), paragraphs 8.22 and 8.50 (NGNNOA1_032).

¹⁰⁴ GEMA, [RIIO-3 FD Overview](#), paragraph 8.48 (NGNNOA1_032).

¹⁰⁵ GEMA, [RIIO-3 FD Overview](#), paragraphs 8.43 and 8.50 (NGNNOA1_032).

¹⁰⁶ GEMA, [RIIO-3 FD Overview](#), paragraph 8.54 (NGNNOA1_032).

¹⁰⁷ GEMA, [RIIO-3 FD Overview](#), paragraph 8.23 (NGNNOA1_032).

(f) **Recent UK regulatory precedent:** GEMA referenced RIIO-2 and RIIO-ED2 as recent regulatory precedents which used EU KLEMS-based growth accounting to set OE figures, value added (“VA”) measures of productivity, and the potential for embodied and disembodied technical change.¹⁰⁸

(129) GEMA stated that its decision to set OE at 1% reflected its “regulatory judgement” and recognised that it is “important that companies are challenged to deliver productivity gains on an ongoing basis”.¹⁰⁹

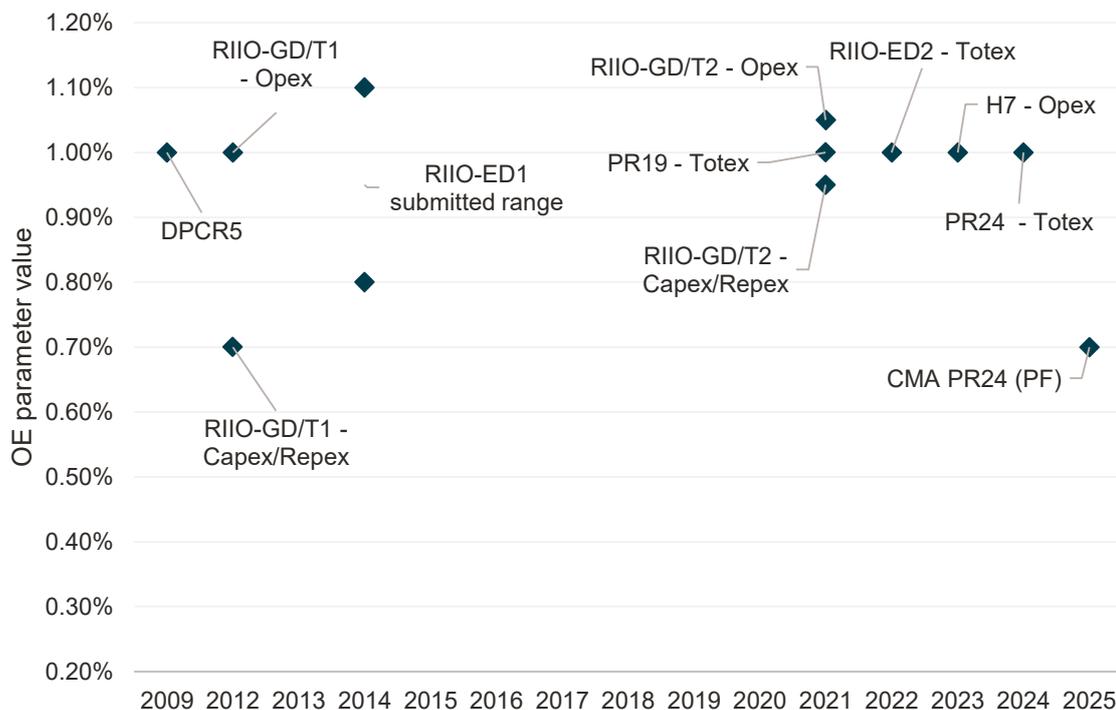
2.4 Regulatory precedent

(130) Recent UK regulatory precedent has coalesced around an OE figure of 1%. As observed in the Ongoing Efficiency Report, GEMA first used an OE of 1% in its 2009 DPCR5 determination of electricity distribution network price controls (i.e. a decision that was issued in the immediate aftermath of the GFC).¹¹⁰

(131) A 1% figure has subsequently been the figure for OE in multiple recent decisions, such as:

- (a) the CMA’s 2021 PR19 price control determinations for four water companies;
- (b) the Civil Aviation Authority’s 2023 H7 price control decision for Heathrow Airport;
- (c) the Northern Ireland Utility Regulator’s 2024 RP7 price control decision for Northern Ireland Electricity; and
- (d) the Water Services Regulation Authority’s (“Ofwat”) 2024 PR24 final determination.

Figure 1: Regulatory precedent on OE



Source: Frontier Economics Ongoing Efficiency Report, Figure 10

¹⁰⁸ GEMA, RIIO-3 FD Overview, paragraph 8.52 (NGNNOA1_032).

¹⁰⁹ GEMA, RIIO-3 FD Overview, paragraph 8.43 (NGNNOA1_032).

¹¹⁰ See Figure 1 below.

- (132) This has partly been based on expectations by regulators that UK productivity growth would improve over time. For example, in the RIIO-2 ELM Appeals, GEMA noted that there was insufficient evidence to conclude that there had been a structural break in productivity growth since 2008, and the CMA held that the data from the BoE and the OBR did not conclusively show “*that productivity growth would continue to be low*”.¹¹¹
- (133) The OE figure should, however, reflect an evidence-based assessment of the extent to which productivity improvements affecting all firms are expected to materialise over the price control period. As explained in Section 3 below, the evidence points to a sustained reduction in UK productivity growth since the GFC and neither observed productivity outcomes nor external forecasts can be said any longer to support an OE figure of 1% in RIIO-GD3.
- (134) Significantly, in the CMA’s water PR24 price redeterminations, the CMA has provisionally decided to set the frontier shift at 0.7% (a reduction from the 1% figure in Ofwat’s PR24 final determination), based on the provisional view that “*there are no convincing reasons to expect productivity growth in the water sector to diverge substantially from the wider economy*”.¹¹²

3 GEMA’s errors in its OE assessment

- (135) GEMA has made a number of material errors in its assessment of a 1% OE figure, namely:
- (a) **Error 1:** An OE parameter of 1% is not compatible with the evidence of the UK’s sustained and ongoing structural productivity weakness (Section 3.1).
 - (i) **Error 1A:** GEMA mistakenly and erroneously relied upon the OBR’s labour productivity growth forecast (i.e. output per hour) instead of TFP growth forecasts; and
 - (ii) **Error 1B:** GEMA erred in concluding that having regard to the latest OBR forecasts requires in-period adjustments.
 - (b) **Error 2:** GEMA’s assertion that energy networks are “*insulated*” from and can “*outperform*” the economy-wide slowdown is unevicenced and flawed (Section 3.4).
 - (c) **Error 3:** GEMA inappropriately relied on a single piece of evidence (NGET’s 0.7% business plan assumption) as an absolute floor on its OE assessment and disregarded other relevant evidence (Section 3.5).
 - (d) **Error 4:** GEMA relied on qualitative factors in support of its OE figure that are unsubstantiated and/or spurious (Section 3.6).
- (136) The Appellant notes that the CMA has previously opined that “*regulators should be afforded a margin of appreciation when setting the OE challenge*” (emphasis added).¹¹³ The Appellant also recognises that the CMA found that GEMA did not err in setting a 1% OE figure in RIIO-GD2. Significantly, in reaching its decision in the RIIO-2 ELM Appeals, the CMA noted that it had placed less weight on productivity forecasts by the OBR and BoE given the variation in forecasts. The CMA stated it “*did not find that the BoE and OBR data conclusively showed that productivity growth would continue to be low*”.¹¹⁴
- (137) Since November 2021, however, there is extensive, comprehensive and compelling evidence that the slowdown in UK economy-wide productivity growth is not a transitory phenomenon.¹¹⁵ With each year, there has been additional data from the ONS showing ongoing and sustained low productivity growth.

¹¹¹ CMA, RIIO-2 ELM Appeals, FD Volume 2B, paragraph 7.799(a) (NGNNOA1_052).

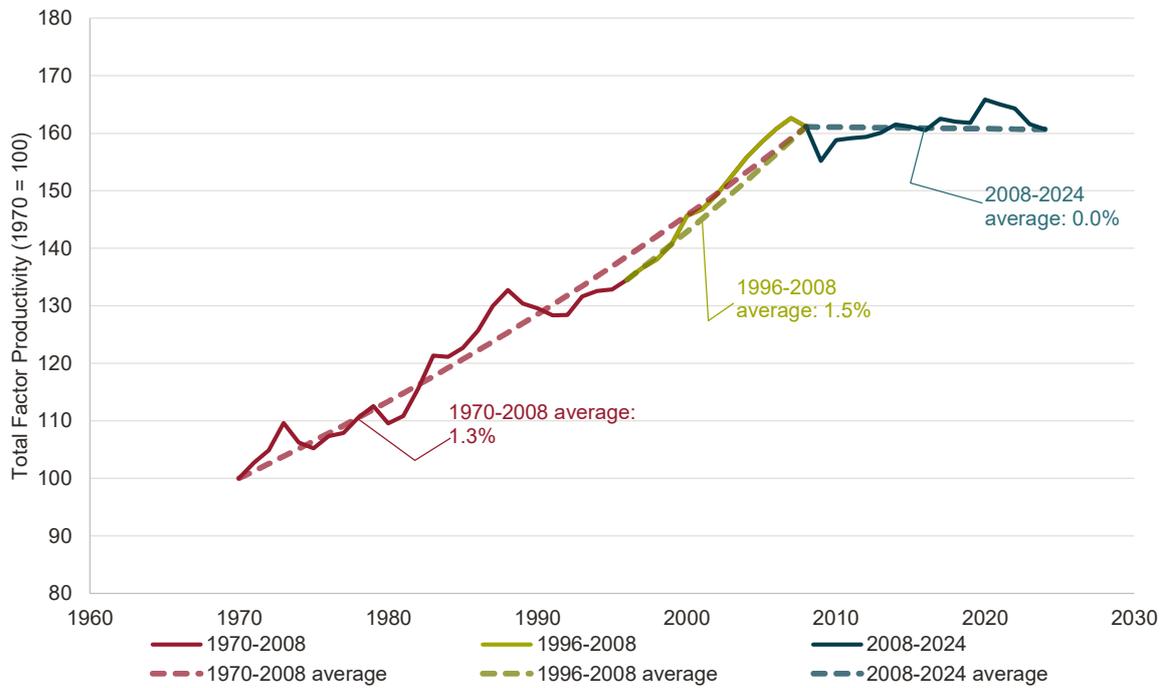
¹¹² CMA, Water PR24 References, Provisional Determinations Volume 1, paragraph 4.173 (NGNNOA1_055).

¹¹³ CMA, RIIO-2 ELM Appeals, FD Volume 2B, paragraph 7.444 (NGNNOA1_052).

¹¹⁴ CMA, RIIO-2 ELM Appeals, FD Volume 2B, paragraph 7.799 (NGNNOA1_052).

¹¹⁵ See Section 3 of the Ongoing Efficiency Report (exhibited at MR1_1).

Figure 2: UK market sector TFP since 1970

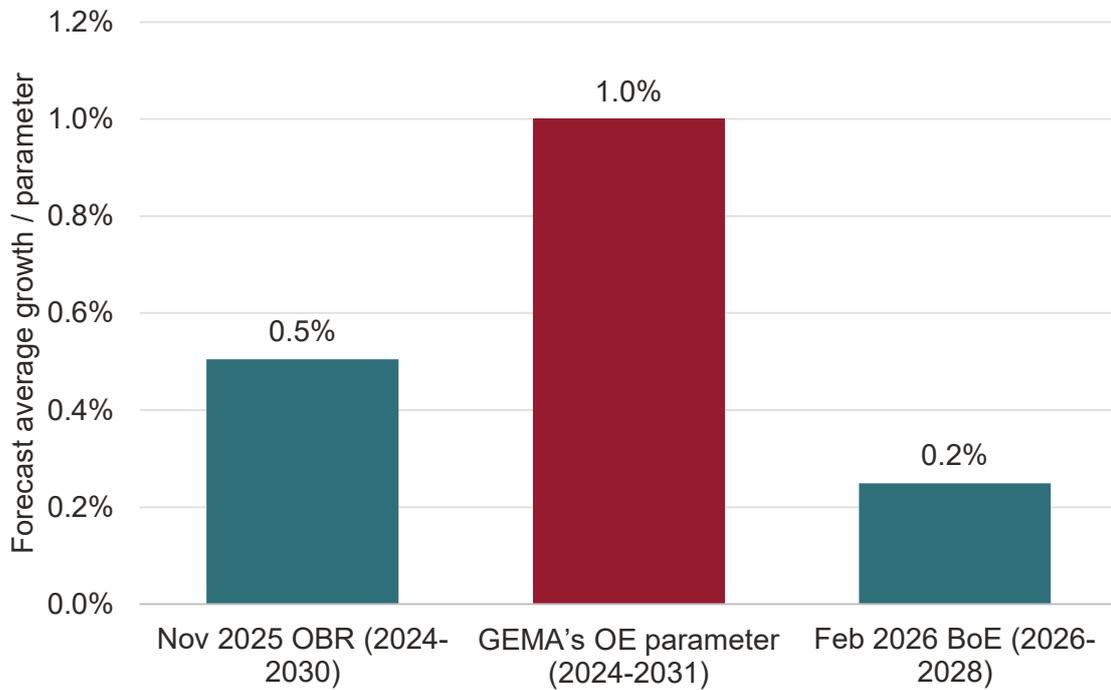


Source: Frontier Economics Ongoing Efficiency Report, Figure 1

- (138) Moreover, third party estimates (including by the BoE and OBR) now reflect a widespread expectation that this underlying structural weakness will persist and demonstrate a clear consensus that it is not credible to believe/expect that the UK economy will rebound to pre-2008 rates of productivity growth in the short or medium term.¹¹⁶ As shown below, the OBR's and BoE's latest forecasts for TFP growth do not support GEMA's 1% OE figure within the RIIO-GD3 period, as the forecasts are materially below GEMA's OE figure, and there are no years where either forecast expects to reach 1% TFP growth:

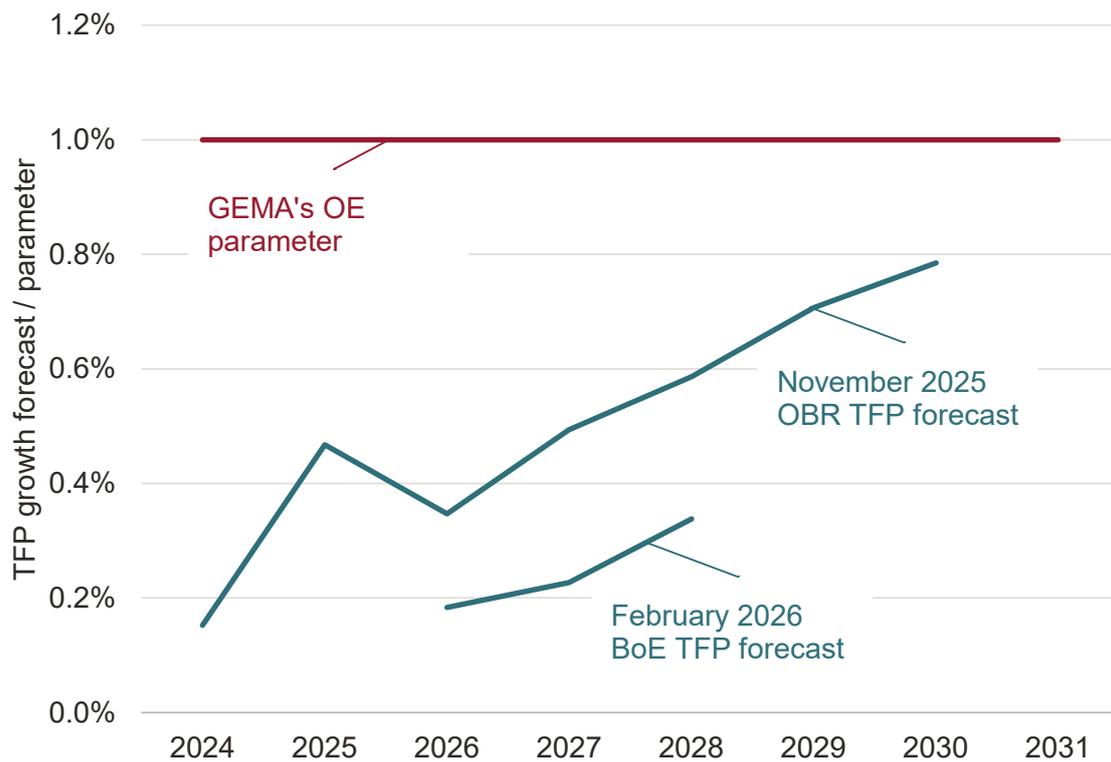
¹¹⁶ Frontier Economics, Ongoing Efficiency Report, paragraph 4.5 (exhibited at MR1_1).

Figure 3: Average of independent TFP growth forecasts and GEMA's OE



Source: Frontier Economics Ongoing Efficiency Report, Figure 8

Figure 4: Independent TFP growth forecasts and GEMA's OE parameter



Source: Frontier Economics Ongoing Efficiency Report, Figure 9

- (139) In the OBR's briefing paper on forecasting productivity, its view was that the observed slowdown post-GFC has been driven by structural factors: *"It now appears more likely that the slowdown was also underpinned by structural changes with impacts lasting into the medium term. [...] given that UK productivity growth remains subdued some 17 years on from the financial crisis, a strong rebound – like those seen after previous shocks – appears increasingly unlikely. The balance of evidence suggests that deep-rooted structural factors will continue to drag on growth over our forecast period"*.¹¹⁷
- (140) Both the historical and recent productivity forecasts therefore demonstrate that GEMA's OE parameter is simply not compatible with, or supported by, economy-wide evidence/forecasts of the UK's sustained and ongoing structural productivity weakness.
- (141) Setting a 1% OE target in these circumstances is not within the reasonable margin of appreciation of regulatory judgement and is in error. The Appellant submits that an alternative approach which gives appropriate weight to evidence regarding the slowdown in productivity is *"materially better"* and *"offers something more"* than GEMA's approach (applying by extension the test laid down by the High Court in *Wales & West Utilities v CMA* in respect of section 23D(4)(a) and (b) GA86).¹¹⁸

3.1 Error 1: GEMA has erred in that an OE parameter of 1% is not compatible with the evidence of the UK's sustained and ongoing structural productivity weakness

- (142) GEMA's OE figure is not compatible with, or supported by, the overwhelming evidence of sustained and widespread productivity weakness in the UK over the last 15-plus years. Productivity growth data simply does not support an OE figure of 1%. As such, there is no basis for the conclusion that the OE parameter as set by GEMA in the RIIO-3 FD is achievable in light of the UK's sustained and ongoing structural productivity weakness.
- (143) GEMA notes in its RIIO-3 FD that *"we have given qualitative consideration to independent forecasts of wider UK productivity growth from the OBR and BoE in coming to our OE target in our Final Determinations, our approach to setting OE does not tie the outcome directly to such forecasts"*.¹¹⁹ In practice, and as explained below, these independent forecasts have no discernible impact on GEMA's OE figure.
- (144) GEMA justifies its position to disregard this evidence on the basis that:
- (a) It considers that the OBR's medium-term outlook sits within the top end of GEMA's OE range.¹²⁰
 - (b) Independent forecasts are uncertain, which make the forecasts liable to change in the future, implying that the level of productivity challenge companies face should be updated throughout RIIO-3.¹²¹
- (145) Sections 3.2 and 3.3 below will explain that both of these justifications, in turn, constitute separate and standalone errors.
- (146) GEMA also notes that it expects regulated network companies to be able to outperform the average UK firm, which such forecasts represent. This error is dealt with in Section 3.4 below.

3.1.1 UK productivity growth has fallen materially and persistently following the GFC

- (147) As noted at paragraph (132) above, GEMA has previously found that there was insufficient evidence to find that the UK's productivity growth would not return to its pre-GFC level. As explained in detail in

¹¹⁷ OBR, [Briefing paper No.9 Forecasting productivity – November 2025](#) (26 November 2025), page 17 (NGNNOA1_066).

¹¹⁸ *Wales & West Utilities v CMA*, [156] (NGNNOA1_063).

¹¹⁹ GEMA, [RIIO-3 FD Overview](#), paragraph 8.47 (NGNNOA1_032).

¹²⁰ GEMA, [RIIO-3 FD Overview](#), paragraph 8.49 (NGNNOA1_032).

¹²¹ GEMA, [RIIO-3 FD Overview](#), paragraph 8.47 (NGNNOA1_032).

Section 3 of the Ongoing Efficiency Report, the expert consensus from a variety of institutions is that the UK's economic productivity growth remains well below a 1% OE figure:

- (a) The ONS' latest multi-factor productivity (i.e. TFP) bulletin (May 2025) showed that TFP had made a "*consistently negative contribution to output growth since 2008*", and that the 'productivity puzzle' had impacted the UK's productivity levels to a greater extent than other advanced economies.¹²² The ONS also reports that post-GFC TFP growth has been close to zero since the GFC.¹²³
 - (b) The National Institute of Economic and Social Research noted in November 2025 that the average TFP growth from the first quarter of 2024 was only 0.07% per quarter compared with 0.2% per quarter between the second quarter of 1973 and the first quarter of 2008.¹²⁴
 - (c) Grant Thornton reported to GEMA that the TFP growth rates in sectors comparable to GDNs averaged 0.1% per annum between 2008 and 2019 (in contrast to an average of 1.3% per annum over 1997 to 2007).¹²⁵ With one exception, every sector included in Grant Thornton's analysis experienced a fall in productivity growth between pre-GFC (1997-2007) and post-GFC (2008-2019). The exception is the Construction sector, which nevertheless still saw negative productivity growth post-GFC. Furthermore, five of the seven sectors experienced negative productivity growth post-GFC, with only one sector (Information and communication) experiencing productivity growth at or above 1%.¹²⁶ Grant Thornton's productivity growth estimate for the whole time series (1970-2019) is 0.5%, and its estimate for the post-GFC period is 0.1%.¹²⁷
 - (d) Frontier Economics' analysis of TFP growth in the post-GFC period using the updated (2025) EU KLEMS benchmarks shows that the estimated TFP growth rate for 1996 to 2019 is unchanged at 0.7%, however the growth rate in the post-GFC period has fallen from 0.1% to -0.1%, reinforcing the evidence of the sustained post-GFC slowdown.¹²⁸
 - (e) The CMA's analysis on productivity and competition (published in December 2025) estimated that TFP growth in the UK over 2010 and 2019 was marginally below zero.¹²⁹
 - (f) The BoE's latest Forecast Evaluation Report (published in January 2026) stated that there was "*a persistent overestimation of productivity trends*" in the 2010s.¹³⁰
- (148) As explained in the Ongoing Efficiency Report, there is an extensive body of work seeking to explain the underlying drivers of the structural break in productivity growth seen across the UK economy since the GFC. While there are likely to be a large number of different drivers of the economy-wide slowdown, key factors include *inter alia*: underinvestment in human capital/skills; lack of investment in productivity-enhancing capital and infrastructure; trade frictions; and the burden of UK regulation (including e.g. health and safety regulations).

3.1.2 GEMA's 1% OE figure is not compatible with the evidence of the UK's sustained and ongoing structural productivity weakness

¹²² ONS, [Annual multi-factor productivity, market sector, UK: October to December 2024 \(23 May 2025\)](#), pages 6-7 (NGNNOA1_064).

¹²³ Frontier Economics, Ongoing Efficiency Report, paragraph 4.3(a) (exhibited at MR1_1).

¹²⁴ NIESR, [Economic Outlook, Stability First](#) (November 2025), page 18 (NGNNOA1_065).

¹²⁵ Grant Thornton, [Second Independent Report](#), paragraphs 3.22-3.23 and Table 2 (NGNNOA1_037).

¹²⁶ Frontier Economics, Ongoing Efficiency Report, paragraph 3.6 (exhibited at MR1_1).

¹²⁷ Frontier Economics, Ongoing Efficiency Report, paragraph 4.3(b) (see also footnote 96 regarding an updated spreadsheet prepared by Grant Thornton after the RII0-3 FD was published) (exhibited at MR1_1).

¹²⁸ Frontier Economics, Ongoing Efficiency Report, paragraph 4.60 (exhibited at MR1_1).

¹²⁹ CMA, [Technology, productivity and competition](#) (10 December 2025), paragraph 4.8 (NGNNOA1_068).

¹³⁰ BoE, [Forecast Evaluation Report](#) (23 January 2026), page 27 (NGNNOA1_069).

- (149) As the OE parameter is applied cumulatively starting from the financial year 2024/25 and running through to 2030/31, the decision to set OE at 1% implies that GEMA considers that the UK economy has already rapidly rebounded towards pre-GFC levels of productivity growth and can reasonably be expected to sustain this rebound throughout RIIO-3.
- (150) These expectations are incompatible with the evidence outlined above.
- (151) The Ongoing Efficiency Report explains that the outlook for the RIIO-GD3 period (2026-2031) is not expected to result in a different trend:
- (a) The OBR's most recent Economic and Fiscal Outlook ("**EFO**") (November 2025) materially downgraded its TFP growth forecast. The briefing paper on forecasting productivity (published alongside the EFO) concluded that the "*continued weakness of [labour] productivity means it becomes less and less likely that the kind of substantive and rapid bounce back to productivity growth rates that the UK has witnessed in the wake of previous shocks is going to materialise over the medium term*".¹³¹ In particular, the latest forecasts from the OBR estimate that economy-wide TFP growth will average 0.5% over 2024 to 2030.¹³² The OBR's view in the EFO was that "*the productivity picture has become somewhat clearer, though not stronger, more recently*".¹³³ This represents a downgrade compared to its previous forecast average of 0.7% and a downgrade for all years in the forecast window other than 2025.¹³⁴
 - (b) The BoE's most recent forecasts available to GEMA at the time of the RIIO-3 FD (February 2025) estimated TFP growth to be at 0.3% in 2027. The forecast included a downgrade of the BoE's February 2024 forecasts (from 0.0% and 0.4% TFP growth for 2024 and 2025, to -0.4% and 0.0%, respectively). The BoE noted that potential productivity was "*much weaker than previously estimated*", and that this trend could not be fully explained by recent 'shocks' from the UK's withdrawal from the European Union, the COVID-19 pandemic, or the major increases in energy prices in 2021-2022. Since GEMA's RIIO-3 FD in December 2025, the BoE has published updated forecasts, as part of the Monetary Policy Report in February 2026. This includes a further downwards revision for both TFP and labour productivity forecasts, relative to the 2025 and 2024 forecasts. The BoE's latest expectation for average TFP growth for the three years from 2026-2028 is 0.2%.¹³⁵

3.1.3 GEMA relied solely on pre-GFC data to determine the top of its range

- (152) The upper bound of GEMA's OE range (1.3%) is based on the EU KLEMS analysis provided by Grant Thornton. Grant Thornton's 1.3% estimate is derived by taking a simple average of GO TFP growth of its selected comparator sectors in the 10 years pre-GFC (1997-2007).¹³⁶
- (153) As noted above, Grant Thornton's analysis clearly shows a persistent structural slowdown in productivity growth since the GFC. Grant Thornton's analysis for the RIIO-3 FD, based on EU KLEMS data available at the time of the RIIO-3 FD, gave an OE estimate of 0.5% for the 1970 to 2019 period, and an estimate of 0.1% for the 2008 to 2019 period. As illustrated in Table 1 below, with the exception of the

¹³¹ OBR, [Briefing paper No.9 Forecasting productivity – November 2025](#) (26 November 2025), paragraph 1.8 (NGNNOA1_066).

¹³² OBR, [Economic and fiscal outlook – November 2025](#) (26 November 2025), paragraph 1.6 and Chart 2.5 (NGNNOA1_067). At RIIO-3 GEMA's OE compounds over seven years from 2024-25. Consequently, the average over 2024-2030 should have been calculated as the relevant comparator.

¹³³ OBR, [Economic and fiscal outlook – November 2025](#) (26 November 2025), page 29 (NGNNOA1_067); Frontier Economics, Ongoing Efficiency Report, Figure 4 (exhibited at MR1_1).

¹³⁴ Frontier Economics, Ongoing Efficiency Report, paragraph 3.8 and Figure 5 (exhibited at MR1_1).

¹³⁵ Frontier Economics, Ongoing Efficiency Report, paragraph 3.12 (exhibited at MR1_1).

¹³⁶ Grant Thornton, [First Independent Report](#), page 4 (NGNNOA1_022).

Construction sector (which sees negative productivity growth both pre- and post-GFC), each sector experienced a fall in productivity growth between pre-GFC (1997-2007) and post-GFC (2008-2019).¹³⁷

Table 1: Results of Grant Thornton's analysis of EU KLEMS average TFP growth including 2008 and 2009

Sectors	1970-1996	1997-2007	2008-2019	1970-2019
Construction	0.4%	-0.9%	-0.2%	-0.2%
Wholesale and retail trade; repair of motor vehicles and motorcycles	1.0%	0.0%	-0.2%	0.1%
Transportation and storage	1.3%	0.7%	-0.6%	0.2%
Financial and Insurance Services	-0.7%	1.2%	-1.1%	-0.4%
Manufacturing (simple average of the six selected subsectors)	0.7%	2.6%	0.2%	0.9%
Information and communication	1.3%	5.2%	2.7%	3.0%
Professional, scientific and technical activities; administrative and support service activities	-0.4%	0.0%	-0.3%	-0.2%
Simple Average	0.5%	1.3%	0.1%	0.5%

Source: Grant Thornton, Second Independent Report, Table 2

- (154) As set out in the Ongoing Efficiency Report, Grant Thornton's estimate is derived solely from TFP growth in the ten-year pre-GFC period (1997 to 2007). As GEMA's upper bound for OE (1.3%) is based on Grant Thornton's EU KLEMS analysis, this implies that GEMA's decision on OE has placed very substantial weight on the pre-GFC period. This is inconsistent with the fact that the trends in observed TFP demonstrate a clear and persistent structural break in TFP growth since the GFC. It also implies that GEMA considers it is plausible to expect that a rapid and sustained bounce back in productivity growth to pre-GFC levels has already started, and will continue through to 2031. This is at odds with the reasoning provided by the BoE and OBR to inform their most recent productivity forecasts (as explained above).¹³⁸
- (155) The Appellant also notes that, in relying solely on pre-GFC data to determine the top of the range, GEMA has also changed its approach to determining the top of the range at RIIO-3. At RIIO-2, GEMA's upper estimate of OE was based on data from 1997 to 2016 and therefore placed some weight on post-GFC data.¹³⁹ GEMA has therefore materially reduced the weight placed on post-GFC data and has placed substantially *more* weight on legacy data.
- (156) While regulators can and do reasonably change methodologies over time, this should be appropriately justified in, or to better respond to, the evidence. As the Ongoing Efficiency Report explains, evidence of a sustained and structural post-GFC productivity slowdown has accumulated materially since RIIO-2: more years of post-GFC outturn data are now available; the historical productivity data has been revised down (even for the data periods which were available at the time of RIIO-2); and the independent forecasts have been revised down.¹⁴⁰ Making a material methodological change to place greater weight

¹³⁷ Grant Thornton, *Second Independent Report*, page 20 (NGNNOA1_037). The analysis does not include 2020 (as Grant Thornton considered this year to be an outlier due to the effects of the COVID-19 pandemic) or 2021 (as EU KLEMS data on TFP only covers the period to the end of 2020).

¹³⁸ Frontier Economics, Ongoing Efficiency Report, paragraphs 4.56-4.57 (exhibited at MR1_1).

¹³⁹ GEMA's RIIO-2 Final Determinations was set with reference to the range of possible OE estimates considered by its consultants at the time, CEPA. (See GEMA, *RIIO-2 FD Core Document (Revised)*, paragraph 5.21 (NGNNOA1_049)).

¹⁴⁰ Frontier Economics, Ongoing Efficiency Report, Section 3 (exhibited at MR1_1).

on pre-GFC data, which runs counter to the fact that the evidence of a sustained structural productivity slowdown is stronger than it was at RIIO-GD2, is neither credible nor adequately justified and runs contrary to principles of best regulatory practice.

3.1.4 Conclusion

(157) In conclusion, GEMA's decision to set an OE figure at 1% was not compatible with the compelling evidence of the UK's sustained and ongoing structural productivity weakness. It therefore represents an **error of law** and/or **error of fact**. GEMA's assessment also failed to have regard to its **statutory duties**, was not consistent with principles of **best regulatory practice** with the result that GEMA's decision to set an OE figure of 1% failed to achieve its stated effect.

3.2 Error 1A: GEMA mistakenly and erroneously relied upon the OBR's labour productivity growth forecast (i.e. output per hour) instead of TFP growth forecasts

(158) GEMA's view to the contrary is due at least in part to an error in the way that it and Grant Thornton (in the Second Independent Report) have read the OBR's recent forecasts.

(159) GEMA notes in the RIIO-3 FD *"the OBR's downgrade of the UK productivity forecasts published on 26 November [2025]. This has resulted in a 0.3% decrease to the medium-term outlook for UK productivity since its previous forecast from 1.3% to 1%. Trend productivity growth is forecast to increase in 2024 and 2025, and then reach 1% in 2030. As noted above, the OBR highlights a high degree of uncertainty and supports its central estimate with upside and downside scenarios, indicating potential medium-term productivity growth up to 1.5% or down to 0.5% respectively. As explained above, this recent revision does not mechanistically result in an update of our view of the appropriate level of OE challenge for regulated network companies in RIIO-3. However, we note that this forecast also sits within at the top-end of the narrow range we have used to set the OE challenge in RIIO-3"*.¹⁴¹

(160) This is an error. GEMA has incorrectly relied upon the OBR labour productivity growth forecast (i.e. output per hour), instead of TFP growth forecasts.¹⁴² For the purposes of determining the OE parameter which is applied to all totex, TFP is the appropriate benchmark measure to inform an OE parameter, as TFP measures how well companies / industries are able to improve and optimise the combination of all inputs to production.¹⁴³ This is consistent with Grant Thornton's use of EU KLEMS TFP data in its analysis.

(161) The average of the OBR's TFP growth forecast over 2024-2030 is 0.5% and only reaches a maximum of 0.8% in 2030. This clearly does not support GEMA's decision to set an OE figure of 1% (as stated in the RIIO-3 FD).¹⁴⁴

(162) Additionally, GEMA's reliance on the OBR's labour productivity growth forecasts also contains a calculation error: the average of the OBR's labour productivity growth forecast over 2024-2030 (which is the appropriate time period to consider, given OE compounds over seven years starting from 2024/25) is only 0.8%, which also sits below GEMA's OE figure of 1%.

(163) Frontier Economics' Ongoing Efficiency Report further demonstrates that Grant Thornton made the same error in its work, likely explaining why GEMA came to a mistaken position in its RIIO-3 FD.¹⁴⁵

¹⁴¹ GEMA, [RIIO-3 FD Overview](#), paragraph 8.49 (NGNNOA1_032). We understand that the reference to 26 November 2026 should be to 26 November 2025 instead.

¹⁴² Frontier Economics, Ongoing Efficiency Report, paragraph 4.49 (exhibited at MR1_1).

¹⁴³ Frontier Economics, Ongoing Efficiency Report, paragraphs 2.19 and 4.45 (exhibited at MR1_1).

¹⁴⁴ Frontier Economics also notes that the OBR's TFP upside and downside labour productivity scenarios are 1.3% and 0.3% respectively (and not the 1.5% and 0.5% figures provided by GEMA). Notwithstanding this, Frontier Economics' assessment is that these scenarios are for the year 2030 only - there is no indication of the OBR's average upside / downside scenarios over 2024-2030. As a result, the OBR's scenarios are not directly comparable to GEMA's OE parameter. (Frontier Economics, Ongoing Efficiency Report, footnote 147 (exhibited at MR1_1)).

¹⁴⁵ Frontier Economics, Ongoing Efficiency Report, paragraph 4.49(a) and footnote 150 (exhibited at MR1_1).

Frontier Economics also identify that Grant Thornton made two additional errors in its analysis of external forecasts (namely, the February 2025 BoE and March 2025 OBR forecasts):¹⁴⁶

- (a) Grant Thornton's analysis of OBR and BoE forecasts used the average annual TFP growth during the five-year periods of 2024-2030, 2025-2029, and 2026-2030.¹⁴⁷ However, this approach does not take into account that GEMA's OE figure compounds over a seven-year period (starting from the first year of forecast costs in the energy networks' business plans (2024/25) and to the end of RIIO-3 (2030/31)).¹⁴⁸ As a result, the relevant comparator which Grant Thornton should have used for the average annual TFP growth is the period of 2024-2030.
- (b) Grant Thornton's analysis referred to the OBR's projected TFP growth rate for 2024 (0.3%) yet omitted the figure in the BoE forecast for the same year (-0.4%). No explanation is provided for this discrepancy.¹⁴⁹

- (164) Frontier Economics demonstrates that correcting the errors set out in paragraphs (158) to (163) above gives a CAGR of 0.6% for 2024-2030.¹⁵⁰ These figures demonstrably do not support an OE of 1.0%, contrary to the assertion in the Second Independent Report. Furthermore, had Grant Thornton used the OBR's November 2025 forecast, the (corrected) calculation would give a CAGR of 0.4% for 2024-2030.¹⁵¹
- (165) In conclusion, GEMA's contention that the OBR's November 2025 productivity forecasts supported its OE figure of 1% was **wrong in law and/or wrong in fact**. The Second Independent Report prepared by Grant Thornton also contained errors of fact.

3.3 Error 1B: GEMA erred in concluding that having regard to the latest OBR forecasts requires in-period adjustments

- (166) GEMA misdirected itself when it concluded that using the latest OBR forecast required establishing an in-period annual adjustment mechanism.¹⁵² This justification for not giving weight to third-party forecasts does not withstand scrutiny and constitutes a clear error in its own right.
- (167) On 26 November 2025, the OBR published its November 2025 productivity report.¹⁵³ Within this report, the OBR revised down its medium-term TFP growth forecast to an average of 0.5% from 2024 to 2030. This was a material downgrade from the forecast published in March 2025. Although the OBR's November 2025 report was published shortly before GEMA issued the RIIO-3 FD, the OBR's report was noted by GEMA in the RIIO-3 FD. While GEMA acknowledged the downgrade in the RIIO-3 FD, the forecast was dismissed on the basis that *"[e]xplicitly linking our OE challenge to independent forecasts would therefore imply that the level of productivity challenge companies face should be updated throughout RIIO-3, as revised forecasts are published. This would not be consistent with the principles of the RIIO framework, which broadly seeks to provide companies with allowances set ex ante, and incentivises them to outperform against these. We think this would lead to an unstable and uncertain regulatory framework, which would be undesirable and operationally challenging for companies. While we include mechanisms to adjust totex allowances in period, such as RPEs, this is not comparable, as the drivers of productivity are less clearly identified and are not directly measurable in the same way as*

¹⁴⁶ Frontier Economics, Ongoing Efficiency Report, paragraph 4.49(b)-(c) (exhibited at MR1_1).

¹⁴⁷ Grant Thornton, *Second Independent Report*, paragraph 7.20 (NGNNOA1_037).

¹⁴⁸ GEMA, *RIIO-3 FD Overview*, paragraph 8.21 (NGNNOA1_032).

¹⁴⁹ Grant Thornton, *Second Independent Report*, Table 5 (NGNNOA1_037).

¹⁵⁰ Frontier Economics, Ongoing Efficiency Report, paragraph 4.50 (exhibited at MR1_1).

¹⁵¹ Frontier Economics, Ongoing Efficiency Report, paragraph 4.51 (exhibited at MR1_1).

¹⁵² GEMA, *RIIO-3 FD Overview*, paragraph 8.48 (NGNNOA1_032).

¹⁵³ OBR, *Economic and fiscal outlook – November 2025* (26 November 2025) (NGNNOA1_066).

the indices which underpin the RPE adjustments. Therefore, OE must be set as an ex ante target at the start of the price control to support regulatory stability".¹⁵⁴

- (168) GEMA has not given appropriate weight to the OBR's updated forecast (which was available prior to the RIIO-3 FD's publication) in its decision to set the OE figure at 1%. The OBR's report was highly relevant to GEMA's decision on OE as it directly affects the assessment on future productivity growth. The allowance set at RIIO-3 FD should be informed by all the relevant evidence available to GEMA at the time. The fact that the OBR had materially downgraded its forecast shortly before the RIIO-3 FD should not have been dismissed by GEMA – rather, it was an important additional piece of evidence to demonstrate that expectations for forward-looking productivity had fallen. In light of this, GEMA has failed to justify its reasons for setting an OE figure without taking into account all relevant evidence available to GEMA before publishing the RIIO-3 FD.
- (169) Furthermore, there are numerous examples of regulatory parameters set by GEMA (and other regulators) during the price control which are informed by data that is updated in-period, but which GEMA does not revisit after the RIIO-3 FD. For example, during RIIO-2, GEMA did not adjust the OE figure despite the release of a revised version of the EU KLEMS dataset during the price control. In RIIO-3, GEMA's estimate of the RPI-CPIH 'wedge' (used to calculate the risk-free rate in the allowed return on equity) is not adjusted during the price control period, even though the wedge is estimated from OBR forecasts of RPI and CPIH which are updated in period. Furthermore, GEMA's cost benchmarking analysis is not updated in-period, despite the availability of outturn data and refined forecasts during a price control period.¹⁵⁵ As such, GEMA's illogical justification for not accounting for the latest OBR forecasts is not consistent with principles of regulatory best practice (given its inconsistency with its approach to using the latest data in other areas of the price control).
- (170) In conclusion, GEMA's contention that having regard to the OBR's updated productivity forecast would require in-period adjustment was irrational and **wrong in law and/or in fact**. It also conflicts with GEMA's approach in other areas of the price control and is incompatible with principles of **best regulatory practice**.

3.4 Error 2: GEMA's assertion that energy networks are "insulated" from and can "outperform" the economy-wide slowdown is un evidenced and flawed

- (171) To inform its OE decision, GEMA makes a number of references to its view that regulated networks are insulated from the productivity slowdown and can be expected to realise productivity improvements above the wider economy.¹⁵⁶ For example, in the RIIO-3 FD, GEMA states its view that "*there remains strong potential for energy network companies to continue delivering ongoing productivity improvements at levels above the average of the wider economy*",¹⁵⁷ and that regulated energy networks "*have greater potential to outperform the wider economy because they operate within the RIIO price control frameworks, which we consider insulates them from the wider economic productivity slowdown due to higher certainty over revenues and returns than for companies operating in competitive sectors*".¹⁵⁸
- (172) As explained in the Ongoing Efficiency Report, GEMA's reasoning is erroneous, for the following reasons. First, there is no theoretical or empirical basis for GEMA's view.¹⁵⁹ Second, many of the key

¹⁵⁴ GEMA, [RIIO-3 FD Overview](#), paragraph 8.48 (NGNNOA1_032).

¹⁵⁵ Frontier Economics, Ongoing Efficiency Report, paragraph 4.54(a)-(c) (exhibited at MR1_1).

¹⁵⁶ GEMA, [RIIO-3 FD Overview](#), December 2025, paragraphs 8.23, 8.43, 8.50, 8.55 (NGNNOA1_032).

¹⁵⁷ GEMA, [RIIO-3 FD Overview](#), paragraph 8.43 (NGNNOA1_032).

¹⁵⁸ GEMA, [RIIO-3 FD Overview](#), paragraph 8.50 (NGNNOA1_032).

¹⁵⁹ Frontier Economics, Ongoing Efficiency Report, paragraph 4.12(a) (exhibited at MR1_1).

drivers of the UK's structural productivity weakness are directly relevant to regulated energy network costs.¹⁶⁰ Each of these issues are discussed in turn below.

- (173) First, GEMA presents no evidenced basis for asserting that regulated companies such as the Appellant can significantly outperform the productivity growth of non-regulated companies in other sectors. The Ongoing Efficiency Report and the First Witness Statement of Dean Pearson show that this assertion does not bear scrutiny.
- (174) As explained in the Ongoing Efficiency Report:
- (a) GEMA's conclusions set out in paragraph (171) above are not supported by its own reasoning: (i) the link between revenue predictability and enhanced TFP growth is vague and GEMA has not further elaborated how or why this link exists; and (ii) there is no reason to conclude that the RIIO framework can be expected to result in TFP growth greater than the wider economy because revenues and returns are not entirely predictable, and other features of regulation and the overall price control could serve to stifle TFP growth potential relative to competitive markets.
 - (b) As a result, GEMA's conclusion is inconsistent with standard economic theory. Standard economic theory implies that competitive markets drive the best long-term outcomes for consumers. As the sector-level EU KLEMS benchmarks used by GEMA to inform the OE figure represent a proxy for competitive outcomes, and the regulation of natural monopolies seeks to mimic the outcomes of competitive markets, it is inconsistent with this standard economic theory to expect that regulated networks are able to outperform the competitive sectors used for the benchmark, simply by virtue of being regulated.¹⁶¹
 - (c) GEMA has also not sought to provide any evidence that regulated energy networks *have* historically delivered productivity improvements at levels above the average of the wider economy or relevant sector benchmarks.¹⁶² Instead, GEMA acknowledges the challenges in measuring historical efficiency.¹⁶³
 - (d) The position that network companies should be able to achieve higher productivity growth rates because of regulation was rejected by the CMA in the RIIO-2 ELM Appeals.¹⁶⁴ The CMA acknowledged that there are reasons why energy networks *may* be less impacted than other sectors (albeit without a substantive assessment of what these reasons may be).¹⁶⁵ Notwithstanding this, the CMA also noted that, while demand for energy was relatively elastic and network companies were relatively less exposed to market fluctuations, this did not imply that they should be able to achieve higher productivity growth rates.¹⁶⁶
 - (e) Additionally, GEMA has not provided any view or evidence on the materiality of the boost to productivity growth which it considers regulated sectors can be expected to achieve relative to the wider economy as a result of being "*insulated*" from the productivity slowdown.
- (175) Second, there is no reason to think that regulated energy networks are "*insulated*" from the factors which are often cited as causes of the UK's structurally weak productivity.¹⁶⁷ These include *inter alia* underinvestment in human capital/skills, lack of investment in productivity-enhancing capital and infrastructure, trade frictions and the burden of UK regulation more generally (including e.g. health and

¹⁶⁰ Frontier Economics, Ongoing Efficiency Report, paragraph 4.12(b) (exhibited at MR1_1).

¹⁶¹ Frontier Economics, Ongoing Efficiency Report, paragraph 4.14 (exhibited at MR1_1).

¹⁶² Frontier Economics, Ongoing Efficiency Report, paragraph 4.18 (exhibited at MR1_1).

¹⁶³ GEMA, [RIIO-3 FD Overview](#), paragraph 8.45 (NGNNOA1_032).

¹⁶⁴ Frontier Economics, Ongoing Efficiency Report, paragraph 4.20 (exhibited at MR1_1).

¹⁶⁵ CMA, [RIIO-2 ELM Appeals, FD Volume 2B](#), paragraph 7.87 (NGNNOA1_052).

¹⁶⁶ CMA, [RIIO-2 ELM Appeals, FD Volume 2B](#), paragraph 7.441 (NGNNOA1_052).

¹⁶⁷ Frontier Economics, Ongoing Efficiency Report, Section 1.2 (exhibited at MR1_1).

safety regulations). In circumstances where regulated businesses operate in the real economy, networks and their supply chain partners experience all the same forces of technological change that also drive the benchmarks. The Appellant therefore would not expect, in principle, that any meaningful insulation from these productivity dynamics is provided by virtue of the regulatory framework.

- (176) Furthermore, there is similarly no basis for GEMA's assertion that operating within the RIIO price control framework allows for "*greater management focus on cost savings and cost efficiency*".¹⁶⁸ Conversely, the regulatory regime itself absorbs significant management time including *inter alia* through the five year price control cycle (with its extensive regulatory engagement, and detailed and highly complex business planning process) and license compliance obligations. See Section III of the First Witness Statement of Dean Pearson for further details.
- (177) As explained in the First Witness Statement of Dean Pearson, the reality is that the Appellant and other GDNs are affected by the adverse headwinds that have been weighing on the UK's economy-wide productivity growth. There are good reasons why these headwinds will not abate (and may continue to build) during RIIO-GD3, notably:
- (a) Human capital issues: skilled labour and supply chain constraints are acute for GDNs. Skills gaps are especially pronounced in the engineering, construction and project management professions essential to gas distribution operations. NGN competes for talent in a constrained labour market where demand significantly outstrips supply, particularly for specialist roles such as gas engineers, network planners, and project managers with utilities experience. NGN also expects to be significantly impacted by the increase in UK infrastructure investment which will lead to supply chain and skills shortages: there is significant uptick in infrastructure investment across water and energy and other sectors creating a limited pool of (a) labour (skills shortages in relevant sectors), (b) contractors and (c) materials. See Section III of the First Witness Statement of Dean Pearson for further details.
 - (b) Regulation: new regulatory requirements will negatively impact NGN's productivity. GDNs are operating in an increasingly stringent regulatory environment, and new requirements (such as from the Health and Safety Executive and relating to streetworks) will continue to negatively impact their productivity over the RIIO-GD3 period. For example, NGN is incurring increased labour costs and reduced operational flexibility due to the Health and Safety Executive's new fatigue requirements, which require working shifts of less than 12 hours within a given 24-hour period. These regulatory requirements place constraints on NGN's operational activities, which in turn can restrict its ability to achieve productivity growth. See Section III of the First Witness Statement of Dean Pearson for further details.
 - (c) Lack of investment: long-term underinvestment in the UK's wider infrastructure directly and materially impact GDNs in a similar manner to other UK firms, given that the nature of the core operational activities of gas distribution networks mean that GDNs make extensive use of this infrastructure (e.g. the road network). For GDNs, this challenge is exacerbated by policy uncertainty over the future of gas. This uncertainty militates against long-term investment in productivity-enhancing solutions by increasing risk, shortening planning horizons, and biasing networks towards lower-risk, short-term, defensive activities that have a more limited impact on productivity, rather than initiatives that could deliver more material efficiency benefits. For NGN, this impact was heightened by the cancellation of NGN's Hydrogen Village trial in December 2023. See Section III of the First Witness Statement of Dean Pearson for further details.
 - (d) Trade frictions: Trade frictions adversely impact GDNs' productivity given the increased costs and reduced availability of critical materials and equipment, much of which is sourced from international suppliers. This was exemplified by the post-COVID-19 global supply chain

¹⁶⁸ GEMA, [RIIO-3 FD Overview](#), paragraph 8.50 (NGNNOA1_032).

disruption which constrained the availability and lead times for procuring specialist commercial vehicles. For NGN, this resulted in delays to planned fleet renewals and knock-in impacts on productivity. In turn, increasing barriers to trade is likely to stifle productivity growth. Trade frictions are not expected to improve significantly going forward (e.g. due to tariff uncertainty etc.). See Section III of the First Witness Statement of Dean Pearson for further details.

- (178) Similarly, the assertion that network companies can outperform wider UK productivity growth is also divorced from the operational realities of a GDN which may lead GDNs to have a more limited productivity potential:
- (a) First, the core operational activities of GDNs are labour and material intensive, requiring the excavation of pathways and roadways to undertake repairs and gas pipe replacements. NGN's core operational activities will remain unchanged during the RIIO-GD3 period and these physical activities are less exposed to technological drivers of productivity such as AI and automation, especially compared to other comparator sectors of the UK economy which have been used to inform GEMA's OE. NGN will continue to leverage developments in technology and associated IT&T expenditure allowances to improve productivity and customer outcomes wherever feasible. However, improvements relating to data and AI are expected to largely benefit NGN's business support functions (which represent only approximately 9% of NGN's submitted totex). Even in the business support elements of NGN's operations, it is not anticipated that IT&T expenditure will result in material additional cost efficiencies, and instead will allow NGN to, for example, manage increasing cyber and data risks and compliance requirements. These digital tools can only optimise the deployment of resource around the margins; they have limited impact on the efficiency of the underlying nature of the work, which remains driven by physical excavation and on-site engineering activity. See Section III of the First Witness Statement of Dean Pearson for further details.
 - (b) Second, the particular technological improvements (DPLA and ALD) which GEMA cites as having the potential to drive productivity enhancements are, in reality, expected to deliver limited productivity benefits. While NGN supports the adoption of these technologies, ALD and data analytics have not yet been shown to increase productivity and NGN is only in the process of procuring its first ALD vehicles following trials on another network. To the extent that ALD technology will enable NGN to improve productivity, it is likely that the majority of the benefit would manifest in safety and environmental improvements, rather than a reduction in costs. Indeed, the application of this technology may actually increase NGN's operational costs, given that it may lead NGN to identify more and earlier needs for intervention via the detection of smaller leaks and/or earlier leaks than they would otherwise have been reported by a member of the public (or gone entirely undetected). Therefore, NGN does not expect a material totex impact from this technology, notwithstanding the wider safety and environmental benefits it may deliver. Similarly, NGN does not have a Licence Obligation to roll-out DPLA at RIIO-GD3 and this will be considered via a reopener. NGN is sceptical of the benefits (including any productivity benefits) that can be delivered to customers from the substantial investment required in DPLA, as explained in NGN's response to the Draft Determinations.¹⁶⁹ See Section III of the First Witness Statement of Dean Pearson for further details.
 - (c) Third, the policy uncertainty regarding the future of gas does not militate in favour of significant productivity increases. As noted in paragraph (177)(c) above, the fundamental uncertainty surrounding the long-term role of gas networks in the UK's energy transition creates material constraints on long-term productivity investments. Gas networks must balance operational efficiency against the need to preserve strategic flexibility for evolving technologies and policy frameworks. Major productivity investments typically require stable, long-term operating

¹⁶⁹ NGN, RIIO-3 Draft Determinations Response to GD Annex, Response to Question 2 (NGNNOA1_028).

environments and a sufficient payback period in order to deliver optimal returns. In the current transition period, where the precise configuration and scale of future gas networks remain subject to policy development, there is a rational constraint on transformational productivity programmes that might prove unsuited to the eventual end-state network. This uncertainty is a structural feature of the sector's current position and materially limits the scope for the kind of productivity improvements that might be expected in industries with clearer long-term growth trajectories. See Section III of the First Witness Statement of Dean Pearson for further details.

- (179) The extent to which regulated companies can outperform the wider economy was examined by the CMA in the RIIO-2 ELM Appeals. The CMA found that GEMA was wrong at RIIO-2 to assume (without evidence) that GDNs could outperform the wider economy.¹⁷⁰
- (180) In conclusion, GEMA's assertion that energy networks are "insulated" from and can "outperform" the economy-wide productivity slowdown was irrational and **wrong in law and/or in fact**. GEMA's assessment therefore failed to have regard to its **statutory duties**, was not consistent with principles of **best regulatory practice** with the result that GEMA's decision to set an OE figure of 1% **failed to achieve its stated effect**.

3.5 Error 3: GEMA inappropriately relied on a single piece of evidence (NGET's 0.7% business plan assumption) as an absolute floor on its OE assessment and disregarded other relevant evidence

- (181) GEMA states that its lower bound of 0.7% is "*the highest estimate submitted by one of the network companies*" which it considers to be "*the minimum level of annual OE improvement all network companies should be able to achieve*".¹⁷¹
- (182) As noted above, GEMA's independent consultants (Grant Thornton) derived a "broad feasible" OE range of 0.1%-1.3%. GEMA then narrowed this to what it considered to be a plausible range of 0.7%-1.3%, by reference to the fact that NGET submitted a 0.7% OE figure in its business plan. As the basis for setting the OE figure was determined based on the midpoint of this "plausible range", the decision underpinning the lower bound adjustment is inextricably linked to the legality and appropriateness of the OE figure itself.
- (183) GEMA's reliance on this single piece of evidence to determine its lower bound is clearly inconsistent with the evidence, namely that:¹⁷²
- (a) the "broad feasible range" developed by its own experts, Grant Thornton, has a lower estimate of 0.1%, which shows that GEMA's own advisers considered it was plausible that TFP growth during RIIO-3 could be at or below zero;
 - (b) Grant Thornton's estimate over the full EU KLEMS time series (1970-2019) is 0.5%;
 - (c) the lower end of Frontier Economics' updated EU KLEMS analysis suggests that negative TFP growth could be feasible at -0.1%; and
 - (d) the OBR's central forecast (0.5%) and the BoE's (0.2%) are both below the bottom end of GEMA's range.
- (184) The reliance on a single piece of evidence as an absolute minimum level of efficiency improvement that all networks can deliver is inappropriate and leads GEMA to disregard other relevant evidence (including, as noted above, the lower part of the plausible range identified by its own experts' estimates). When defining its "plausible" range of 0.7 to 1.3%, it is wrong for GEMA to discard the substantial

¹⁷⁰ CMA, RIIO-2 ELM Appeals, FD Volume 2B, paragraph 7.440-7.441 (NGNNOA1_052).

¹⁷¹ GEMA, RIIO-3 FD Overview, paragraph 8.23 (NGNNOA1_032).

¹⁷² Frontier Economics, Ongoing Efficiency Report, paragraph 4.62 (exhibited at MR1_1).

possibility that TFP growth may be at or close to zero in the relevant period. Given that GEMA decided on its 1% OE figure on the basis that this represented “*the mid-point of this narrow plausible range*,”¹⁷³ the flawed decision to adopt 0.7% as the lower bound of its plausible range itself invalidates GEMA’s decision to set a 1% OE figure.

- (185) As explained in the Ongoing Efficiency Report, NGET’s business plan submission was selected from the top end of the plausible range derived in the Frontier Economics 2024 report and this was estimated specifically to allow for the prospect of some reversion to pre-GFC productivity growth trends.¹⁷⁴
- (186) In relying on NGET’s business plan assumption, GEMA also referenced the implicit incentives on network companies to ‘aim down’ in proposing OE figures. However, GEMA disregards the clear incentives that its RIIO-3 methodology placed on companies when selecting an OE assumption for their business plans (via the Business Plan Incentive). As explained in the First Witness Statement of Dean Pearson (Section V), the incentives created by the RIIO-3 methodology mitigated any putative incentive to ‘aim down’ and NGN’s business plan proposal of 0.5% was informed by both operational factors and the independent economic analysis of Economic Insight. GEMA puts forward no evidence demonstrating that companies have in fact ‘aimed down’, particularly given the outturn and forecast productivity evidence.
- (187) Paradoxically, GEMA’s decision to rely on NGET’s business plan assumption as an absolute minimum level of OE risks creating the very perverse incentives that GEMA claims: by using a network’s business plan submission as a floor in this way risks encouraging companies to aim down in future business plans.
- (188) In summary, GEMA’s decision to use NGET’s business plan assumption of 0.7% as an absolute floor in its assessment of the appropriate OE range is irrational and leads it to disregard relevant evidence (including from its own experts) regarding the plausible lower bound. Given that GEMA’s 1% OE figure was selected on the basis that it represents the midpoint of GEMA’s plausible range, this decision itself necessarily vitiates GEMA’s decision to set its OE figure at 1%.
- (189) This therefore represents an **error of law** and/or **fact**. GEMA’s assessment therefore failed to have regard to its **statutory duties**, was not consistent with principles of **best regulatory practice** with the result that GEMA’s decision to set an OE figure of 1% **failed to achieve its stated effect**.

3.6 Error 4: GEMA has erred in its reliance on qualitative factors in support of its OE figure that are unsubstantiated and/or spurious

- (190) GEMA cites a number of qualitative factors in support of its OE figure which, as explained below, are either unsubstantiated or flawed.¹⁷⁵ In particular, GEMA argues that OE figures should be “*stretching*” to incentivise regulated companies to drive efficiency improvements. As explained in the Ongoing Efficiency Report, this represents a misdirection as to the proper function of an OE parameter.
- (191) GEMA further argues that historical innovation funding and IT&T investments will increase the potential for GDNs to realise productivity benefits. However, as explained in the First Witness Statement of Dean Pearson, NGN’s core activities are physical and labour intensive (excavating, repairing mains, responding to gas escapes, connecting properties). As such, there is simply limited scope for potential productivity increases conferred by automation or AI in the same way as other economic sectors. IT&T

¹⁷³ GEMA, [RIIO-3 FD Overview](#), paragraph 8.23 (NGNNOA1_032).

¹⁷⁴ Frontier Economics, Ongoing Efficiency Report, paragraph 4.62 (exhibited at MR1_1).

¹⁷⁵ See further in Section 5 of the Ongoing Efficiency Report (exhibited at MR1_1).

improvements (including AI) and innovation funding similarly have limited application to improve the efficiency of the Appellant's core business activities.¹⁷⁶

3.6.1 GEMA's (mis)characterisation of its 1.0% OE allowance as an "incentive"

- (192) GEMA states in the RIIO-3 FD that it believes: "*OE represents an important regulatory tool that allows regulators to challenge regulated companies to perform above the level of the average company in the economy, and ensure consumers pay fair prices for the services they receive*".¹⁷⁷ GEMA states that setting an OE figure of 1% is consistent with this position.
- (193) The Appellant believes that this represents a misdirection as to the proper function of an OE figure within a price control. As explained above, the OE figure should be informed by an evidence-based assessment of economy-wide sources of productivity growth.
- (194) While GEMA has a duty to promote efficiency, incentives to adopt new technologies and improve efficiency are driven by the incentive framework during the price control review period (including, in the case of RIIO-GD3, the Totex Incentive Mechanism ("**TIM**"). As explained by GEMA, the TIM "*incentivises companies to seek out efficiencies to lower cost and retain a share of this benefit and avoid cost increases*", as well as "*provides some protection to investors from the risk of significant cost overruns, which helps to lower the cost of financing the companies*".¹⁷⁸ Within an *ex ante* regulatory system in which TIM and other incentive mechanisms operate, the incentive to achieve efficiencies and output improvements is not dependent on the OE level set, and therefore should not factor into the qualitative considerations for setting the OE figure.
- (195) The purpose of the OE figure is not to set a "stretching target" beyond what can be supported by any reasonable view of the relevant evidence to drive individual companies to improve their efficiency by changing how they operate. The effect of setting the OE figure too low is simply to underfund all companies for their efficient costs, rather than to drive any improvements in efficiency. As a result of such misdirection, GEMA's decision to set an OE figure of 1% failed to achieve its stated effect within the meaning of section 23D(4)(d) of GA86 of setting an efficiency target parameter to reflect the productivity improvements that even the most efficient company can achieve.

3.6.2 Historical innovation funding

- (196) One of the factors taken into account by GEMA in favour of the OE figure was the network companies' ability to benefit from efficiency gains stemming from historical customer-funded innovation funding in previous price controls. While GEMA did not seek to quantify the value of these efficiencies, it considered in the RIIO-3 DD that it was "*reasonable to expect productivity benefits from these historical investments to occur during RIIO-3*".¹⁷⁹
- (197) As explained in the Ongoing Efficiency Report, this reasoning is flawed for the following reasons:¹⁸⁰
- (a) First, GEMA has not provided any evidence that the innovation spend by network companies is proportionally higher than the innovation spend for comparable organisations in the wider economy. GEMA has also not provided any assessment of the materiality of the productivity gains which it believes will be delivered by this spend.
 - (b) Second, SIF and NIA funding is aimed at research to support decarbonisation, the energy transition and vulnerable customers, not at delivering direct totex savings. If used as intended,

¹⁷⁶ DP1, paragraph 50.

¹⁷⁷ GEMA, [RIIO-3 FD Overview](#), paragraph 8.22 (NGNNOA1_032).

¹⁷⁸ GEMA, [RIIO-3 FD Overview](#), paragraph 3.23 (NGNNOA1_032).

¹⁷⁹ GEMA, [RIIO-3 DD Overview](#), paragraph 8.33 (NGNNOA1_022).

¹⁸⁰ Frontier Economics, Ongoing Efficiency Report, Section 5.3 (exhibited at MR1_1).

there is no clear basis to assume that benefits from this funding would translate into improved efficiency or reduced costs.

- (c) Third, to the extent there were any estimated cost savings from past innovation funding, these are likely to have already been baked into company business plan submissions for RIIO-3 totex. Treating those same projects as a further source of cost savings now would likely amount to double counting.

(198) As explained in the First Witness Statement of Dean Pearson, contrary to GEMA's assertion, neither the RIIO-GD2 historical innovation funding nor the IT&T allowances at RIIO-GD3 can be expected to deliver material operational efficiency improvements:¹⁸¹

- (a) First, for RIIO-GD2 GEMA positioned the NIA to prioritise projects that facilitate the energy system transition and/or benefit consumers in vulnerable situations, rather than projects that would deliver broad operational improvements to improve productivity. Indeed, NGN considers that 45 of 64 projects (circa 70%) funded to date via the RIIO-GD2 NIA relate primarily to facilitating the energy system transition.
- (b) Second, going forward, innovation funding at RIIO-GD3 will maintain this overall orientation: the NIA retains the same eligibility focus, is coupled more tightly to the SIF's programmatic, mission led approach and continues to count wider social and environmental benefits alongside financial ones, emphasising deployable net zero outcomes at pace and scale, rather than incremental operational efficiencies alone.
- (c) Third, the Appellant considers that its position is consistent with the observations of the CMA at RIIO-2 that the presence of innovation funding is unlikely to lead to significant cost reductions over and above the productivity improvements in the wider economy.¹⁸² Specifically, the CMA concluded that: (i) not all of the innovation funding should result in cost savings; (ii) innovation funding was not entirely incremental to the productivity growth achieved in the wider economy, given that other sectors also invest in innovative projects; and (iii) the impact of innovation funding was already embedded in companies' business plans.¹⁸³ GEMA has not addressed these CMA observations which are equally relevant when considering innovation as a qualitative factor supporting the 1% OE figure at RIIO-3.

3.6.3 IT&T and D&D spending

(199) In the RIIO-3 FD, GEMA stressed the importance of challenging network companies to deliver productivity gains over time, especially in view of the "*record levels of investment expected during RIIO-3*".¹⁸⁴ GEMA noted that the combined allocated funding for IT&T and D&D investments across the ET, GT, and GD sectors accounted for 11% of RIIO-3's *ex ante* totex allowances.¹⁸⁵ GEMA's view was that this funding, combined with the high level of ambition from network companies, supported setting a RIIO-3 OE figure which is stretching but achievable.¹⁸⁶

(200) As explained in the Ongoing Efficiency Report, this is an insufficient basis for justifying an arbitrarily higher OE:¹⁸⁷

¹⁸¹ DP1, paragraphs 50-57.

¹⁸² CMA, *RIIO-2 ELM Appeals, FD Volume 2B*, paragraph 7.802 (NGNNOA1_052).

¹⁸³ CMA, *RIIO-2 ELM Appeals, FD Volume 2B*, paragraph 7.802 (NGNNOA1_052).

¹⁸⁴ GEMA, *RIIO-3 FD Overview*, paragraph 8.43 (NGNNOA1_032).

¹⁸⁵ GEMA, *RIIO-3 FD Overview*, paragraph 8.53 (NGNNOA1_032).

¹⁸⁶ GEMA, *RIIO-3 FD Overview*, paragraph 8.53 (NGNNOA1_032).

¹⁸⁷ Frontier Economics, Ongoing Efficiency Report, Section 5.8 (exhibited at MR1_1).

- (a) First, similarly to the historical innovation projects, GEMA has not provided any evidence that the IT&T spend by network companies is proportionally higher than the expected level for comparable companies in the wider economy; nor has GEMA set out any assessment of the materiality of the productivity gains it believes will be delivered by future spend.
- (b) Second, similarly to the reasons regarding the historical innovation projects, (and to the extent there are any estimated cost savings from future innovation funding) the estimated costs savings are likely already baked into the RIIO-3 allowances (for example, through networks' business plan submissions, as the BPI incentivises companies to submit efficient totex plans). Reliance on this qualitative factor by GEMA to justify a higher OE figure would likely amount to double counting.
- (c) Third, it is plausible that a material portion of IT&T and D&D spend would not relate to investment in the sorts of systems and technologies that are expected to result in any improvements in productivity. Similarly, investment in cyber security does not necessarily lead to expected productivity gains – rather it is the additional input (i.e. investment) to meet newly required output (enhanced cyber security).

(201) As explained in the First Witness Statement of Dean Pearson:¹⁸⁸

- (a) First, IT&T funding may be expected to have limited impact on NGN's core activities. NGN's core operational activities for GD are physical and labour intensive, thereby limiting the impact of IT&T improvements (including AI) on efficiency improvements to core business activities.
- (b) Second, as noted in paragraph (178)(b) above, some technological innovations such as ALD may potentially lead to higher overall costs and there is currently no evidence that it will improve productivity (similar for DPLA).
- (c) Third, NGN's RIIO-GD3 IT&T request was modest (only 6% of NGN's submitted totex), however GEMA disallowed 25% of NGN's IT&T requested funding. GEMA's rationale for a stretching OE figure on the basis of IT&T funding is therefore counterintuitive with this material reduction, which will limit any putative ability of NGN to drive efficiency improvements.
- (d) Fourth, the main focus of the IT&T expenditure is to allow for the continued maintenance of NGN's compliance and cyber security and to mitigate rising costs from underinvestment in IT&T, such as increased faults and device and software failures; rather than to achieve productivity enhancements.

3.6.4 Value added (“VA”)

(202) GEMA states it has placed qualitative weight on VA measures in the RIIO-3 FD.¹⁸⁹

(203) However, the approach adopted in the Ongoing Efficiency Report identifies a benchmark range from the EU KLEMS data which directly incorporates VA measures and results in a plausible range of -0.1% - 0.7%.¹⁹⁰ GEMA's consideration of VA on a qualitative basis therefore does not support and should not justify an OE parameter of 1%.

(204) GEMA further states that it took into account the potential for embodied and disembodied technical change during RIIO-3. However, the Ongoing Efficiency Report notes that it is not aware of any regulator or practitioner that has been able to reliably estimate the size of the effect of embodied and disembodied technical change, and how much this effect could distort the estimates derived from EU KLEMS data.¹⁹¹

¹⁸⁸ DP1, paragraphs 56-57.

¹⁸⁹ GEMA, [RIIO-3 FD Overview](#), paragraph 8.52 (NGNNOA1_032).

¹⁹⁰ Frontier Economics, Ongoing Efficiency Report, paragraph 5.15 (exhibited at MR1_1).

¹⁹¹ Frontier Economics, Ongoing Efficiency Report, paragraph 5.16 (exhibited at MR1_1).

The Ongoing Efficiency Report also notes that GEMA has not responded to evidence presented by Economic Insight that networks may have less opportunity to benefit from embodied technical change given their assets have longer asset lives and are not replaced frequently.¹⁹²

3.6.5 Conclusion

- (205) GEMA's reliance on a series of qualitative factors in support of its OE figure of 1% that are either unsubstantiated and/or spurious represents an **error of law** and/or **fact**. GEMA's assessment therefore failed to have regard to its **statutory duties**, was not consistent with principles of **best regulatory practice** with the result that GEMA's decision to set an OE figure of 1% **failed to achieve its stated effect**.

3.7 Conclusion: GEMA's errors in its OE assessment will have significant consequences for the Appellant and customers

- (206) For the reasons explained above, GEMA has erred in setting a 1% OE figure.
- (207) The impacts of this error on NGN and its customers are material (valued at £42.7 million compared to NGN's proposed 0.5% OE figure).¹⁹³ As explained in the First Witness Statement of Dean Pearson, GEMA's error in setting a 1% OE figure will result in the Appellant being underfunded for its efficient costs (which has knock-on implications for resilience, network safety and the quality of service that can be delivered for customers).¹⁹⁴

4 Remedy

- (208) The Appellant requests that the CMA quashes the Decision under section 23E(2)(a) GA86 and substitutes its own decision to the extent necessary to remedy the errors in the Decision.
- (209) The Appellant submits that the CMA should set an OE figure which is significantly lower than 1%. The Appellant considers that the OE figure should be set at 0.5%, consistent with the OE figure in its Business Plan and within the top end of the -0.1% - 0.7% range that Frontier Economics assesses in the Ongoing Efficiency Report. The First Witness Statement of Dean Pearson explains the robust basis on which NGN included an OE figure of 0.5% in its Business Plan.

LINKLATERS LLP

¹⁹² Economic Insight, [Ongoing Efficiency for Gas Networks at RIIO-3](#) (13 May 2024), page 67 (NGNNOA1_016).

¹⁹³ This reflects the totex impact of 1% compared to NGN's proposed 0.5% and is based on 2023/2024 prices in GEMA's allowance file dated 23 February 2026. See GEMA, GD3 Allowances File (NGNNOA1_038).

¹⁹⁴ DP1, paragraphs 62-64.

STATEMENT OF TRUTH

The Appellant believes that the facts stated in this Notice of Appeal are true.

.....

Signature of Authorised Representative

.....

Name of Authorised Representative

.....

Date: 3 March 2026

for and on behalf of Northern Gas Networks Limited

**ANNEX I
GLOSSARY**

Term	Definition
ALD	Advanced leakage detection.
AI	Artificial intelligence.
Appellant	Northern Gas Networks Limited or NGN.
BoE	Bank of England.
CAGR (compound annual growth rate)	The average annual growth rate of a metric over a specified period, accounting for the effect of compounding.
CC	Competition Commission.
CMA	Competition and Markets Authority.
Capital expenditure (capex)	Expenditure on investment in long-term distribution and transmission assets, such as gas pipelines or electricity overhead lines.
D&D	Data and digitisation.
Decision	The decision of GEMA to proceed with modifications to the licence published on 3 February 2026 under section 23 GA86.
DP1	First Witness Statement of Dean Pearson.
DPLA	Digital Platform for Leakage Analytics.
EFO	Economic and Fiscal Outlook.
ET	Electricity transmission.
EU KLEMS	EU KLEMS is a series of historical growth and productivity accounting datasets covering EU member states, published by the Vienna Institute for International Economic Studies. The research was originally financed by the European Commission, and is a widely recognised and well-established source of growth accounting data. The productivity measures in EU KLEMS compare quantity of inputs (capital, labour, energy, materials and services – hence “KLEMS”), to quantity of outputs, at a country and industry level.
<i>Ex ante</i>	Refers to a value or parameter established upfront (e.g. at the price control review to be used in the price control period ahead).
Financing Duty	The duty under section 4AA(2)(b) GA86 requiring GEMA to have regard to the need to secure that licence holders are able to finance their regulated activities.
First Independent Report	RIIO-3 Technical Annex: Independent Report on Ongoing Efficiency.
FSNR	Future systems and network regulation.
GA86	Gas Act 1986.
Gas Directive	Directive 2009/73/EC of the European Parliament and of the Council of 13 July 2009 concerning rules for the internal market in natural gas and repealing Directive 2003/55/EC OJ [2009] L211/94.
Gas Distribution Network (GDN)	GDNs transport gas from the National Transmission System to final consumers and to connected system exit points. There are eight network areas managed by four companies that are subject to RIIO price controls.

Term	Definition
GEMA	Gas and Electricity Markets Authority.
GD	Gas distribution.
GFC	Global Financial Crisis.
Gross Output (GO) measures of productivity	Productivity is often measured by comparing the quantity of inputs used with the quantity of outputs produced. GO measures of productivity measure the ratio of aggregate output to all inputs (capital, labour and intermediate inputs: energy, materials and services).
GT	Gas transmission.
IT&T	Information technology and telecommunications.
Network company	A transmission owner or GDN operator.
NGET	National Grid Electricity Transmission plc.
NGN	Northern Gas Networks Limited.
NIA (Network Innovation Allowance)	A use-it-or-lose-it allowance to fund small projects focused on the energy system transition and vulnerable consumers.
NIC (Network Innovation Competition)	The NIC was introduced by GEMA as part of the RIIO price controls. The Gas NIC is an annual opportunity for gas network companies to compete for funding for the development and demonstration of new technologies, operating and commercial arrangements. Funding will be provided for the best innovation projects which help all network operators understand what they need to do to provide environmental benefits, reduce costs, and maintain security of supply as Great Britain moves to a low carbon economy.
OBR	Office for Budget Responsibility.
OE (Ongoing efficiency)	The reduction in the volume of inputs required to produce a given volume of output, i.e. the productivity improvements that we consider even the most efficient company is capable of achieving.
Ofgem	Office of Gas and Electricity Markets.
Ofwat	Water Services Regulation Authority.
Ongoing Efficiency Report	Frontier Economics Report, 'Assessment of GEMA's Approach to Setting Ongoing Efficiency at RIIO-3'.
ONS	Office for National Statistics.
opex	Operating expenditure, being the costs of the day-to-day operation of the network such as staff costs, repairs and maintenance expenditures and overheads.
Outputs	Services, requirements, and deliverables that network companies are funded or incentivised to deliver through the price control.
PFP	Partial factor productivity.
PR24	Ofwat's 2024 price review, setting out a five-year price and service package to enable water companies to deliver and invest in services as well as operate more efficiently in order to reduce bills.
repex	Replacement expenditure, being the Health and Safety Executive enforced gas mains replacement programme.
RIIO	Revenue = Incentives + Innovation + Outputs, being GEMA's regulatory framework.

Term	Definition
RIIO-2 ELM Appeals	The appeals of RIIO-2 by network companies, which were determined by the CMA.
RIIO-2 FD	RIIO-2 Final Determinations.
RIIO-3	The third RIIO UK energy regulation framework price control, commencing on 1 April 2026 and running until 31 March 2031.
RIIO-3 DD	RIIO-3 Draft Determinations.
RIIO-3 FD	RIIO-3 Final Determinations.
RIIO-GD1	The first RIIO price control in the gas distribution sector, covering the period from 1 April 2013 to 31 March 2021.
RIIO-GD2	The second RIIO price control in the gas distribution sector, covering the period from 1 April 2021 to 31 March 2026.
RIIO-GD3	The third RIIO price control in the gas distribution sector, commencing on 1 April 2026 and running until 31 March 2031.
RPI-X	The form of price control applied to regulated energy network companies before RIIO. Each company was given a revenue allowance in the first year of the control period. The price control then specified that in each subsequent year the allowance would move by 'X' % in real terms.
RPI-X@20	GEMA's comprehensive review of how it regulates energy network companies, announced in March 2008. Its conclusions, published in October 2010, resulted in the implementation of a new regulatory framework, known as the RIIO model.
SAP S4 HANA	SAP S4 HANA is SAP's enterprise resource planning software package for large enterprises.
Second Independent Report	RIIO-3 Technical Annex: Second Independent Report on Ongoing Efficiency.
SHET	Scottish Hydro Electric Transmission.
SPT	SP Transmission.
SSMDs	Sector Specific Methodology Decisions.
TFP (Total factor productivity)	The TFP, also referred to as multifactor productivity, is the portion of an economy's output growth that cannot be attributed to the accumulation of capital and labour. It represents output growth that happens beyond the simple growth of inputs.
TIM	Totex Incentive Mechanism.
Totex	Total expenditure, including both capital expenditure (capex) and operating expenditure (opex), as well as replacement expenditure (repex) in gas distribution.
VA (Value Added measures of productivity)	Productivity is often measured by comparing the quantity of inputs used with the quantity of outputs produced. Value added (VA) measures, which measure the ratio of (a) gross output minus the value of intermediate inputs (energy, materials and services), to (b) labour and/or capital inputs.

ANNEX II CHRONOLOGY

This chronology details the key steps leading up to GEMA's Decision and this Appeal.

Date	Event
29 September 2022	GEMA publishes an open letter setting out the strategic context of future systems and network regulation (“ FSNR ”) and seeking views from stakeholders.
31 October 2022	Responses to FSNR open letter due.
10 March 2023	GEMA commences consultation on FSNR, setting out proposals on the framework for the next round of price controls.
20 May 2023	GEMA closes consultation on the FSNR.
26 July 2023	GEMA publishes the “Open Letter on Future of Gas Price Controls”, setting out its decision to develop a medium-term <i>ex-ante</i> price control for the gas networks, starting in 2026.
26 October 2023	GEMA publishes its decision on the overarching framework for RIIO-GD3.
13 December 2023	GEMA consults on the sector-specific methodology for RIIO-GD3.
7 March 2024	GEMA closes consultation on the sector-specific methodology for RIIO-GD3.
18 July 2024	GEMA issues its decision on the sector-specific methodology for RIIO-GD3, as well as its Business Plan Guidance.
30 September 2024	GEMA re-publishes the Business Plan Guidance and associated documents to correct errors and provide clarifications.
December 2024	GDNs including NGN submit their final business plans for RIIO-GD3.
18 December 2024	GEMA publishes Call for Evidence on the business plans for RIIO-GD3.
11 February 2025	GEMA closes Call for Evidence on RIIO-GD3 business plans.
21 March 2025	GEMA publishes summary of responses to Call for Evidence.
1 July 2025	GEMA publishes Draft Determinations for RIIO-GD3 and commences consultation.
30 July 2025	GEMA commences RIIO-GD3 initial licence consultation.
27 August 2025	GEMA closes consultation on Draft Determinations for RIIO-GD3.
17 September 2025	GEMA closes RIIO-GD3 initial licence consultation.
4 December 2025	GEMA publishes Final Determinations for RIIO-GD3.
16 December 2025	GEMA commences statutory consultation on proposed modifications to RIIO-GD3 licences and associated documents.
17 January 2026	GEMA closes statutory consultation on proposed licence modifications for RIIO-GD3.

Date	Event
2 February 2026	GEMA commences statutory consultation on proposed modifications to additional RIIO-GD3 associated documents.
3 February 2026	GEMA publishes its Decision on licence modifications for RIIO-GD3.
25 February 2026	NGN notifies GEMA of its intention to appeal the Decision.
26 February 2026	GEMA closes statutory consultation on proposed licence modifications and additional RIIO-GD3 associated documents.
3 March 2026	Deadline to appeal against GEMA's Decision to the CMA.

ANNEX III RELIEF

1 Appeal Ground 1: Ongoing Efficiency

1.1 Relief sought

The Appellant requests that the CMA quashes the Decision and substitutes its own which the Appellant submits should be significantly lower than 1%. The Appellant considers that, for the reasons set out in this Notice, the OE figure should be 0.5% as per the OE figure in NGN's Business Plan, and within the top end of the -0.1% to 0.7% range that Frontier Economics assesses in the Ongoing Efficiency Report.

1.2 Required amendments for ongoing efficiency

To give effect to the relief sought under Appeal Ground 1: Ongoing Efficiency, a list of amendments to the RIIO-GD3 Price Control Financial Model and associated Regulatory Finance Interface File, as well as the Network Asset Risk Workbook (NARW) and Network Asset Risk Metric (NARM) Handbook are required. These are summarised in section 1.3 below, which includes the amendments required if any parameter of the totex allowance (including ongoing efficiency figure) is modified.

1.3 Required amendments for totex allowances

This section includes the amendments required if Ongoing Efficiency is modified. Therefore, these amendments are necessary to give effect to the Appeal Ground 1: Ongoing Efficiency.

The following amendments to the RIIO-GD3 Price Control Financial Model as well as the Network Asset Risk Workbook (NARW) and Network Asset Risk Metric (NARM) Handbook are required:

- (i) Numerical values in the following cells in the Northern tab of the RIIO-GD3 Price Control Financial Model to be replaced with values redetermined following amendments to and re-running of GEMA's cost models in accordance with the guidance set out in Appendix 1 to this Annex III.
- (ii) AU454:AY458 (non-variant allowances)
- (iii) AU95:AY144 (variant allowances)
- (iv) Following these amendments, the amended NARW and, where appropriate, the amended NARM Handbook to be reissued under paragraph 3.1.2(b) of Special Condition 3.1.

2 Amendments to Licence

The following values in the Licence should be re-calculated and replaced with values that are consistent with the reliefs sought under the four grounds of appeal:

- (i) The definition of 'Ex-Ante Base Revenue' in Special Condition 1.1 Part B;
- (ii) The definition of 'Materiality Threshold' in Special Condition 1.1 Part B;
- (iii) Values of 'Cumulative total of Baseline Network Risk Outputs (R£m*) and Baseline Allowed NARM Expenditure (NARMt) for delivering Baseline Network Risk Outputs (£m)' in Appendix 1 of Special Condition 3.1;
- (iv) Values of 'Operational transport emissions reduction PCD allowance by Regulatory Year (£m)' in Appendix 1 of Special Condition 3.09;

- (v) Values of 'Target number of ZEV purchases and unit costs' in Appendix 2 of Special Condition 3.09;
- (vi) Values of 'Baseline Activity Volumes of Tier 1 Mains Decommissioned and Allowed Unit Costs of Tier 1 Mains Decommissioned' in Appendix 2 of Special Condition 3.10;
- (vii) Values of 'Tier 1 Mains Baseline Values by Regulatory Year (T1MRAt, £m)' in Appendix 3 of Special Condition 3.10;
- (viii) Values of 'Baseline Activity Volumes of Tier 1 Services Repex and Allowed Unit Costs' in Appendix 2 of Special Condition 3.11;
- (ix) Values of 'Tier 1 Services Baseline Values by Regulatory Year (T1SRAt, £m)' in Appendix 3 of Special Condition 3.11;
- (x) Values of 'Distribution Network specific matrix costs (£ per kilometre mains decommissioned including associated service interventions) for Above Risk Action Threshold Tier 2 Mains: Distribution Network by Regulatory Year: Northern Gas Networks Limited' in Appendix 3 of Special Condition 3.12;
- (xi) Values of 'Simple Disconnection unit costs' in Appendix 1 of Special Condition 3.18;
- (xii) Values of 'Complex Disconnection unit costs' in Appendix 2 of Special Condition 3.18;
- (xiii) Values of 'Allowed unit cost Of Tier 1 Stubs Decommissioned' in Appendix 2 of Special Condition 3.19;
- (xiv) Values of 'Allowed unit cost of Tier 1 Stubs Investigated But Not Decommissioned' in Appendix 4 of Special Condition 3.19.

APPENDIX 1 TO ANNEX III

Amendments to GEMA's cost models

1 Background

Amendments as a result of the OE figure will initially impact GEMA's cost models, but not the benchmarking or BPI calculations directly.

The OE related model updates would then produce a totex number and a partial disaggregation of the allowance. This is then used in a separate series of models to further disaggregate the allowance and calculate the various PCD unit rates as set out in section 2 of Annex III. This series of models is still being amended by GEMA. Once GEMA has completed its updating of these models we will provide an updated version of this Appendix to provide the CMA with a complete process.

The output of this process then provides the relevant disaggregated allowances and unit costs to feed into both the Price Control Financial Model and the Licence, as detailed below.

2 Changing ongoing efficiency targets

File – Allowances_File_GD_noRPEs

Tab – Inp_OngoingEfficiency

Rows – 12 to 16

Columns – AJ to AP

Formula – hardcoded number with 1.00%. Amend all cells to reflect final target

3 Totex Disaggregation Models and PCD Unit Rate Calculations

This step is not covered here. Relevant unit rates in the licence are highlighted in section 2 above.