

**Northern Powergrid
(Northeast) Limited and
Northern Powergrid
(Yorkshire) plc v the Gas
and Electricity Markets
Authority**

Final determination

© Crown copyright 2015

You may reuse this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence.

To view this licence, visit www.nationalarchives.gov.uk/doc/open-government-licence/ or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: psi@nationalarchives.gsi.gov.uk.

Website: www.gov.uk/cma

**Members of the Competition and Markets Authority
who conducted this appeal**

John Wotton (*Chair of the Group*)

Graham Sharp

Jon Stern

Chief Executive of the Competition and Markets Authority

Alex Chisholm

The Competition and Markets Authority has excluded from this version of the determination information which it considers should be excluded having regard to the confidentiality and disclosure considerations set out in section 11H(2) of the Electricity Act 1989 and Rule 11 of the Competition Commission Energy Licence Modification Appeals Rules (CC14) as adopted by the CMA. The omissions are indicated by [✂]. Some numbers have been replaced by a range. These are shown in square brackets.

Contents

	<i>Page</i>
Final determination.....	3
1. Introduction.....	3
2. Background to the appeal.....	4
Distribution Network Operators and their role in the electricity supply chain.....	4
The Distribution Network Operators and their ownership structures.....	5
The regulation of Distribution Network Operators' revenues.....	6
RIIO-ED1.....	6
3. The legal framework and the NPg Appeal.....	10
The decision under appeal.....	10
GEMA's objectives.....	11
The appeal.....	13
Test on appeal and standard of review.....	14
Nature of the Decision under review.....	20
Materiality.....	23
The CMA's powers when allowing an appeal.....	23
Conduct of the appeal.....	24
Submissions received.....	25
Hearings.....	26
Closing submissions.....	26
Provisional determination.....	26
Consultation with other slow-track DNOs.....	26
Structure of our determination on the grounds of appeal.....	27
4. Ground 1: smart grid benefits.....	27
Background.....	27
Strategy stage.....	28
Draft Determinations.....	28
Final Determinations.....	30
Summary of NPg's appeal on ground 1.....	31
Ground 1A: unjustified, disproportionate and discriminatory.....	32
Ground 1B: inappropriate and flawed methodology.....	33
Ground 1C: errors in implementation.....	34
Ground 1D: unfair process.....	35
Summary of GEMA's response to appeal ground 1.....	35
Summary of NPg's Reply.....	41
Our assessment of appeal ground 1.....	44
Justification for NPg's smart grid benefit adjustment at Final Determinations.....	45
Other criticisms under NPg's ground 1.....	66
Conclusion on appeal ground 1.....	69
Remedy.....	73
Implementation.....	75
5. Ground 2: real price effects.....	76
Background.....	76
Summary of NPg's appeal ground 2.....	79
Summary of GEMA's response to appeal ground 2.....	81
Summary of NPg's Reply to appeal ground 2.....	82
Our assessment of appeal ground 2.....	83
GEMA's use of external evidence rather than Distribution Network Operator data.....	83

Regulatory precedent	86
GEMA's chosen indices.....	87
Conclusion on appeal ground 2	91
6. Ground 3: regional labour cost adjustments	91
Background.....	91
Summary of NPg's appeal ground 3	93
Summary of GEMA's response to appeal ground 3.....	95
Summary of NPg's Reply to appeal ground 3	96
Our assessment of appeal ground 3	97
Potential uses of the ASHE data set.....	97
Compositional bias and choice of comparator organisations.....	104
Alternative data sources	107
Procedural errors.....	108
Overall assessment of NPg's ground 3	109
Conclusion on appeal ground 3	110
7. Determination on costs	111
The CMA's costs.....	111
Inter partes costs	112

Glossary

Final determination

1. Introduction

- 1.1 On 3 February 2015, the energy regulator, the Gas and Electricity Markets Authority (GEMA), published its decision to modify the electricity distribution licences of ten Distribution Network Operators (DNOs). These licence modifications cover an eight-year period from 2015 to 2023 and include revenue allowances for each DNO. The Competition and Markets Authority¹ (CMA) has considered two separate appeals relating to this decision: one from an electricity supplier, British Gas Trading Limited (BGT), against the decision to modify the ten licences; and one from the Northern Powergrid group (NPg) against the licence modifications for its two DNOs, Northern Powergrid (Northeast) Limited and Northern Powergrid (Yorkshire) plc.
- 1.2 This document sets out our final determination on the NPg appeal. Under the applicable statutory framework for the appeals process, the CMA is required to reach its final determination by 30 September 2015.
- 1.3 In reaching our final determination, we considered [NPg's Notice of Appeal](#) and related documents and GEMA's Response and related documents. We also held hearings with both parties and considered submissions from certain other interested third parties, such as Citizens Advice, and other slow-track DNOs whom we consulted on our provisional determination and who provided submissions on potential links between this appeal and the BGT appeal.
- 1.4 In this document, we set out the background to the appeal before considering each ground of NPg's appeal in detail. In Section 2 of this document, we briefly summarise the role of electricity distribution in the electricity supply chain and the structure of the industry. We also describe the RIIO price control mechanism and the role of GEMA in setting a price control for the DNOs. This section of the document draws heavily on a submission jointly agreed between the appellant (NPg) and the respondent (GEMA) and references are to this material unless otherwise stated.²
- 1.5 Section 3 sets out the legal framework for the appeal, how the appeal has been conducted to date and our consideration of the appropriate standard of review for this appeal. Both sections 2 and 3 are substantively the same as the equivalent sections in our determination on an appeal by BGT under the same statutory framework against GEMA's decision to modify the licences of

¹ On 31 March 2015, in accordance with paragraph 4(2) of Schedule 5A to the Electricity Act 1989 (EA89), a group consisting of three members of the CMA's panel was appointed to consider and determine this appeal.

² The content of this material was also agreed with BGT.

each of the ten slow-track DNOs. For the avoidance of doubt, this includes addressing arguments made by parties in one or the other appeal in relation to the standard of review and the nature of the decision.

1.6 Sections 4, 5 and 6 consider each of NPg's three grounds of appeal in turn. For each ground, we briefly summarise the relevant main arguments and supporting evidence put forward by the parties, explain the reasoning for our determination on each ground and, where relevant, our remedy and a process for its implementation.

1.7 Section 7 sets out our determination on costs.

2. Background to the appeal

Distribution Network Operators and their role in the electricity supply chain³

2.1 Electricity is transported from generators to consumers via networks: the high voltage transmission network, operated by Transmission Operators (TOs); and the lower voltage distribution networks, operated by DNOs. DNOs use the lower voltage networks to carry electricity to industrial, commercial and domestic users up to their meter points.⁴ Broadly, DNOs' obligations are: to maintain security of supply; provide connections for generation and supply; and to operate in an efficient, economic and non-discriminatory manner.

2.2 Electricity suppliers buy energy in the wholesale market, or directly from producers, and are obliged to enter into contractual arrangements with TOs and DNOs so that the electricity is delivered to consumers. Suppliers are the primary point of contact for most consumers for matters relating to the supply of electricity.

2.3 DNOs also have interactions with consumers. These interactions are often about ensuring that consumers receive a safe and reliable supply of electricity. For example, during power cuts it is the DNOs which supply information on the location and duration of the power cut; provide special assistance to consumers with priority needs; and liaise with other bodies (local councils, charities etc) to ensure vulnerable consumers are protected.⁵

³ This section of the determination draws heavily on background material provided to the CMA and jointly agreed by main parties to this appeal and that of NPg.

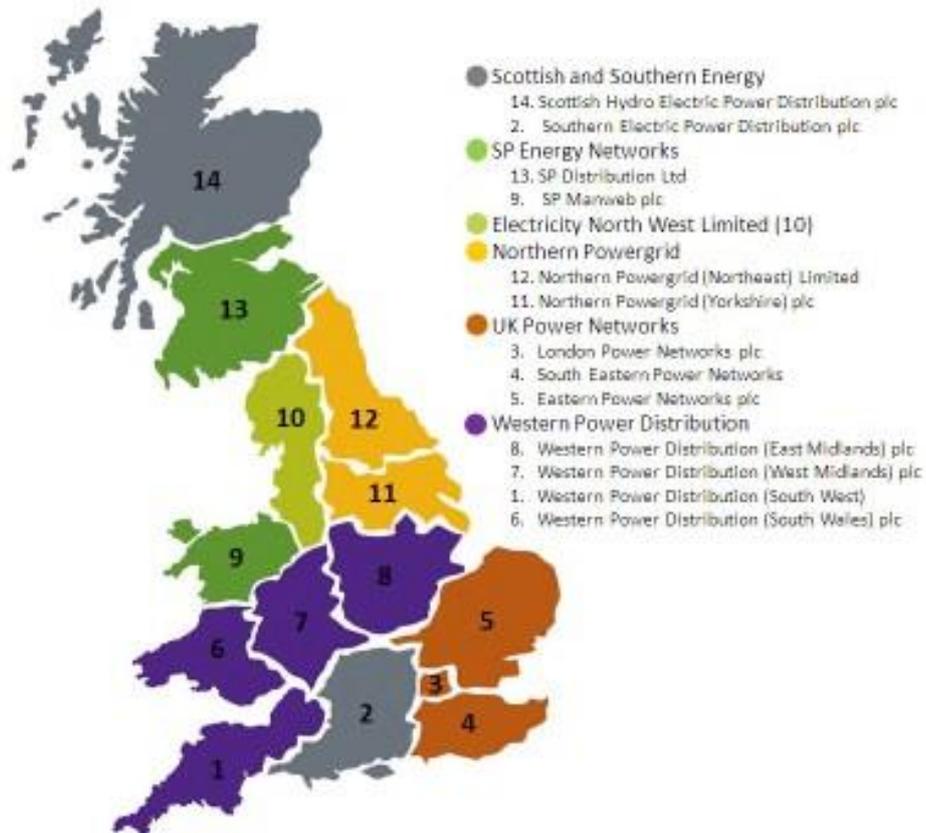
⁴ The vast majority of customers in Great Britain are connected to the distribution network. There are a small number of large customers connected directly to the transmission grid.

⁵ Other consumers may have (or require) a more significant interaction with the DNO. For example, they may need a new or modified connection, have trees that are close to overhead power lines, or need covered overhead power lines that are near to their property.

The Distribution Network Operators and their ownership structures

2.4 DNOs are regional monopolies, owned and operated by private companies. There are 14 DNOs owned by six groups in Great Britain (see Figure 1 and Table 1).

Figure 1: DNO location and ownership



Source: GEMA.

Table 1: DNO acronyms

DNO group		DNO	
ENWL	Electricity North West Ltd	ENWL	Electricity North West Limited
NPg	Northern Powergrid	NPgN NPgY	Northern Powergrid: Northeast Northern Powergrid: Yorkshire
WPD	Western Power Distribution	WMID EMID SWALES SWEST	Western Power Distribution: West Midlands Western Power Distribution: East Midlands Western Power Distribution: South Wales Western Power Distribution: South West
UKPN	UK Power Networks	LPN SPN EPN	UK Power Networks: London Power Networks UK Power Networks: South East Power Networks UK Power Networks: Eastern Power Networks
SPEN	SPEN Energy Networks	SPD SPMW	SPEN Energy Networks: Distribution SPEN Energy Networks: Manweb
SSEPD	Scottish and Southern Energy Power Distribution	SSEH SSES	Scottish and Southern Energy Power Distribution: Scottish Hydro Electric Power Distribution Scottish and Southern Energy Power Distribution: Southern Electric Power Distribution

The regulation of Distribution Network Operators' revenues

- 2.5 DNOs do not charge consumers directly for using the system; they charge generators and suppliers (use of system charges). It is up to suppliers how to reflect these costs in their charges to their customers, by including the distribution charges in those customers' energy bills. Due to the differences in distribution networks across the country, charges in different areas can vary significantly. GEMA told us that the electricity distribution component of a typical annual domestic fuel bill in 2014/15 was £109.
- 2.6 Through price controls, which are given effect by modifications to DNOs' distribution licences, GEMA regulates the revenues that DNOs can recover from generators and suppliers. It also seeks to incentivise the DNOs to innovate and find new ways to improve their efficiency and quality of service.
- 2.7 At fixed points in time GEMA conducts a price control review in which it sets the revenues for the DNOs over the next price control period. Historically, price control periods have lasted for five years – the most recent of these was the fifth electricity Distribution Price Control (DPCR5) which set allowed revenues for the period from 1 April 2010 to 31 March 2015.

RIIO-ED1

- 2.8 The price control under appeal is the first for the electricity distribution network set under GEMA's new RIIO price control model (setting Revenue using Incentives to deliver Innovation and Outputs).⁶ The new model was introduced in response to significant changes for the energy sector driven by the need to deliver a low carbon economy, with a target of an 80% reduction in greenhouse gas emissions by 2050 and decarbonised electricity generation by 2030, while maintaining security of supply. The price control runs from 1 April 2015 to 31 March 2023, and was characterised by GEMA as RIIO-ED1.
- 2.9 DNOs will need to be able to allow potentially large volumes of local generation (such as solar photovoltaic and wind) and low carbon demand (such as electric vehicles and heat pumps) to connect in a timely and efficient manner. Distribution networks are not currently designed to accommodate these loads, which are expected to be a key driver of future investment needs.
- 2.10 Adding to the challenge is the considerable uncertainty around the take-up of these technologies, in terms of timing, volume and location as well as the impact on the network. To accommodate these new volumes, DNOs may

⁶ The RIIO model was first implemented in the RIIO-T1 and GD1 price control reviews in the gas and electricity transmission sector and the gas distribution sector respectively.

need to move away from traditional investment to newer, more flexible solutions offered by so-called 'smart grid' technologies and contractual arrangements with demand and generation customers (ie demand-side response) to find long-term efficient solutions. They will also need to consider the needs of their customers, especially with respect to vulnerable customers and the fuel poor.

2.11 The RIIO model is an incentive-based model under which GEMA sets both the amount DNO companies can earn over the price control period and what the DNOs must deliver in return for those revenues. GEMA explained the revenue element of the price control as comprising:

- the base revenue a DNO may collect from its customers;
- the outputs it must deliver, and the rewards/penalties for over-/under-delivery; and
- certain mechanisms for funding defined elements of uncertainty (ie those GEMA decided it was inappropriate to forecast upfront).

2.12 This is shown in Figure 2 below.

Figure 2: Components of allowed revenue



Source: GEMA industry background briefing to the CMA, 15 April 2015.

2.13 Base revenue is the revenue that a DNO requires to cover efficient costs assessed by GEMA (including financing costs) of delivering outputs and long-term value for money, including allowances for maintenance of, and investment in, capital assets and taxation, plus an adjustment which gives some weight to the DNO's own assessment of costs in its business plan.

2.14 GEMA describes base revenue as comprising four different categories:

- An allowance for DNO expenditures that is set at the time of the price control review. These expenditures are called totex (total expenditure).
- An allowance for certain elements of DNO expenditures that are provisionally set at the time of the price control review and then subsequently updated during the price control period. These expenditures include operating costs the DNOs cannot control, eg directly remunerated services.

- An allowance intended to reflect the cost of capital for the DNO.⁷
 - Tax (which is calculated each year, depending on the DNOs' performance and circumstances).
- 2.15 Totex is a RIIO concept to ensure companies make balanced decisions between different types of solution. Totex is remunerated by a combination of 'fast money' and 'slow money'. Fast money may be thought of as akin to operating costs or expenditure (opex) and is provided in-year. Slow money remunerates costs that are added to the regulatory asset value (RAV) which is depreciated. The expenditure funded by slow money may be thought of as akin to capital expenditure (capex).
- 2.16 In addition to the base revenue set within the licence, DNOs are allowed revenues from:
- (a) uncertainty mechanisms, where GEMA has accepted that certain costs are outside companies' control, and therefore it is not appropriate to set allowances *ex ante*;
 - (b) cost incentives, where DNOs retain a proportion of the difference between their actual out-turn expenditure and the allowances set by GEMA for the period, and share the remainder with consumers;
 - (c) output incentives, where DNOs may incur penalties or gain rewards from delivery against specific incentive schemes; and
 - (d) where appropriate, adjustments to revenues resulting from a review of actual performance in DPCR5, for example against incentive mechanisms in previous price control periods.
- 2.17 In developing the proposals for RIIO-ED1, there were a number of stages, from its launch in February 2012 to the start of the price control period in April 2015. There were two distinct phases: fast-track assessment and slow-track assessment.
- 2.18 The fast-track phase involved GEMA's initial review of the business plans with a view to assessing which companies should face more or less intensive scrutiny. Under RIIO, where a plan is judged by GEMA to be of sufficiently high quality and provides good value overall, it is considered for fast-tracking. This means that GEMA accepts the business plan as submitted and concludes the company's price control review early. This is intended to

⁷ The calculation of a firm's cost of capital in which each category of capital (debt and equity) is proportionately weighted is known as the weighted average cost of capital (WACC).

incentivise the companies to submit their best business plan early in the process. Fast-tracking provides reputational benefits to the DNO and enables it to start preparing for the new price control early (for example, by negotiating contracts). It also aims to encourage companies to reveal information earlier in the process and to drive efficiencies and improve proposals for delivery from the companies remaining in the process.

- 2.19 The slow-track phase involves more detailed scrutiny of the remaining companies' business plans. It is this slow-track process and GEMA's consequent definition of costs which is the subject of this appeal.
- 2.20 As part of its review of slow-track business plans, GEMA performed efficiency benchmarking of the DNOs' costs. Based on this benchmarking analysis, GEMA set targets for efficient costs for the slow-track DNOs by reference to the costs of the DNOs at the industry level. This benchmarking included adjustments to DNOs' plans to improve comparability. The actual levels of totex assumed were based on GEMA's efficiency assessment, together with the output of GEMA's Information Quality Incentive (IQI). The IQI is intended to provide incentives for companies to provide high-quality business plans.
- 2.21 In addition, as part of this slow-track review, GEMA considered the implementation of other aspects of its RIIO strategy decision. This included the cost of capital, the approach to financeability, and other representations from stakeholders, including the DNOs within their slow-track business plans.
- 2.22 In RIIO-ED1, the WPD companies were fast-tracked. WPD's licence modifications were finalised in May 2014. The timetable across both phases can be summarised as follows:
- [Strategy consultation – September 2012](#) ('the Strategy Consultation').
 - [Strategy decision – March 2013](#) ('the Strategy Decision').
 - [Initial business plan submissions and consultation – July 2013](#).
 - [Fast-track consultation and draft determinations for fast-tracked companies – November 2013](#) ('the Fast-Track Consultation and Draft Determinations').
 - [Fast-track decision and final determinations for fast-tracked companies – February 2014](#) ('the Fast-Track Final Determinations').
 - [Consultation on the fast-track licence modifications – March 2014](#) ('the Fast-Track Consultation').

- [Implementation of the fast-track licence modifications – May 2014](#) ('the Fast-Track Decision').
- [Revised slow-track business plan submissions and consultation – March 2014](#).
- [Slow-track draft determinations – July 2014](#) ('the Draft Determinations').
- [Slow-track final determinations – November 2014](#) ('the Final Determinations').
- [Consultation on the slow-track licence modifications – December 2014](#) ('the Consultation').
- [Implementation of the slow-track licence modifications – February 2015](#) ('the Decision').

2.23 We refer to these stages, including submissions and responses to the various consultations, in this determination.

2.24 The Final Determinations for RIIO-ED1 set the allowed revenues for the slow-track DNOs for the period from 1 April 2015 to 31 March 2023.⁸ The Fast-Track Final Determinations covered the same period, but were completed earlier in 2014, have been accepted, and are not subject to any appeal. The total allowed base revenues included in the licences of the ten slow-track DNOs over the price control are shown in Table 2.

Table 2: Total allowed base revenues for slow-track DNOs

<i>2012/13 prices, £ million</i>	<i>ENWL</i>	<i>NPg</i>	<i>UKPN</i>	<i>SPEN</i>	<i>SSEPD</i>	<i>Total</i>
Base revenues	2,887	4,559	10,094	5,260	5,857	28,656

Source: GEMA's Response to NPg's Notice of Appeal, Table 1, p49.

3. The legal framework and the NPg Appeal

The decision under appeal

3.1 GEMA's periodic price controls are given effect by way of modifications to the DNOs' licences. The licences that are the subject of this appeal are 'distribution licences' granted under section 6(1)(c) of the Electricity Act 1989 (EA89).

⁸ There is provision in the RIIO model for a mid-period review of the price control in certain limited circumstances.

- 3.2 By virtue of section 11A of EA89, subject to the prescribed notice having been provided,⁹ GEMA may make modifications to:
- (a) the conditions of a particular licence;
 - (b) the standard conditions of licences of any types mentioned in section 6(1) of EA 89 (including distribution licences).
- 3.3 The price controls that are at issue in the present appeal were introduced by way of modification to the DNOs' licences under section 11A of EA89. The decision to modify the licences appears in a GEMA document entitled *RIIO-ED1 modifications to amend the special conditions of the electricity distribution licence held by the above named licensees and reasons for the decision pursuant to section 11A and 49A of the Electricity Act 1989*, published on 3 February 2015 (the 'Decision').
- 3.4 The Decision also amended the licences of a further eight DNOs: Electricity Northwest Limited (ENWL); London Power Networks plc (LPN), South Eastern Power Networks plc (SPN); Eastern Power Networks plc (EPN) (together UKPN); SP Distribution plc (SPD); SP Manweb plc (SPMW) (together SPEN); Scottish Hydro Electric Power Distribution plc (SSEH); and Southern Electric Power Distribution plc (SSES) (together SSEPD).
- 3.5 The licences of the other four DNOs,¹⁰ collectively owned by WPD, were modified in February 2014 by way of a separate GEMA decision at the 'fast-track' stage of its RIIO-ED1 price control.

GEMA's objectives

- 3.6 In carrying out its functions in relation to the supply of electricity, GEMA is subject to a 'principal objective', which is to protect the interest of existing and future consumers in relation to electricity conveyed by distribution systems or transmission systems¹¹.
- 3.7 In this context, EA89¹² explains that the 'interest of existing and future consumers' means their interests taken as a whole, including:
- (a) their interest in the reduction of electricity supply emissions of targeted greenhouse gases;

⁹ Section 11A(2) of EA89.

¹⁰ WPD East Midlands plc; WPD West Midlands plc; WPD South-West plc; and WPD South Wales plc.

¹¹ Section 3A(1) of EA89.

¹² As amended by the Energy Act 2010.

- (b) their interest in the security of the supply of electricity to them; and
 - (c) their interest in the fulfilment by GEMA, of the objectives set out in Article 36(a) to (h) of the Electricity Directive.¹³
- 3.8 Section 3A of EA89 goes on to set out a series of specific duties with which GEMA must comply in relation to its principal objective, as well as a series of considerations to which it must (or, in some cases, may) have regard in performing those duties.
- 3.9 First, GEMA is required to carry out its functions under EA89 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 generation, transmission, distribution or supply of electricity or the provision or use of electricity interconnectors.¹⁴
- 3.10 Second, before deciding to carry out its functions in a particular manner with a view to promoting competition, GEMA must consider:
 - (a) to what extent the interest of consumers would be protected by the 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.¹⁵
- 3.11 Third, when performing the functions described above, GEMA must have regard to:
 - (a) the need to secure that all reasonable demands for electricity are met;
 - (b) the need to secure that licence holders are able to finance their activities; and
 - (c) the need to contribute to the achievement of sustainable development.
- 3.12 Fourth, in performing its duties set out above, GEMA must have regard to the interests of a number of specified categories of individual (eg those who are disabled).¹⁶

¹³ Directive 2009/72/EC, 13 July 2009.

¹⁴ EA89, section 3A(1B).

¹⁵ EA89, section 3A(1C).

¹⁶ EA89, section 3A(3).

3.13 Fifth, and subject to the requirements set out in paragraphs 3.9 and 3.11 above, GEMA must carry out its functions in relation to the supply of electricity in the manner which it considers is best calculated:

- (a) to promote efficiency and economy on the part of persons authorised to distribute, supply or participate in the transmission of electricity, to participate in the operation of electricity interconnectors, or to provide a smart meter communication service and the efficient use of electricity conveyed by distribution systems or transmission systems;
- (b) to protect the public from dangers arising from the generation, transmission, distribution or supply of electricity or the provision of a smart meter communication service; and
- (c) to secure a diverse and viable long-term energy supply;

and GEMA must, in carrying out those functions, have regard to the effect on the environment of activities connected with the generation, transmission, distribution or supply of electricity or the provision of a smart meter communication service.¹⁷

3.14 Sixth, in carrying out its functions in relation to the supply of electricity, GEMA must have regard to (among others):

- (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.

The appeal

3.15 GEMA's decisions to modify electricity licences (including distribution licences such as those held by the DNOs) are subject to a specific appellate regime. Under section 11C of EA89 certain persons are entitled to appeal GEMA's decision to the CMA. These include (i) persons who hold a licence under section 6(1) of EA89, where the decision at issue involves a modification to the terms of that licence (referred to in EA89 as a 'relevant licence holder') as

¹⁷ EA89, section 3A(5).

well as (ii) any other person who holds a licence of any type under section 6(1) of EA89 whose interests are materially affected by the decision.

- 3.16 Potential appellants require permission from the CMA to bring an appeal.¹⁸ On 2 March 2015, NPg sought permission as the holder of an electricity distribution licence. On 30 March 2015, the CMA granted NPg permission to bring its appeal.¹⁹
- 3.17 By virtue of section 11G(1) of EA89, the statutory deadline for the Group's final determination on the appeal is 30 September 2015.

Test on appeal and standard of review

- 3.18 Under section 11E(4) of EA89, having granted permission, the CMA may allow an appeal only where it is satisfied that the decision appealed was 'wrong' on one or more of the following specified grounds:
- (a) that GEMA failed properly to have regard to the matters to which GEMA must have regard in carrying out its principal objective and its duties;
 - (b) that GEMA failed to give the appropriate weight to any of those matters;
 - (c) that the decision was based, wholly or partly, on an error of fact;
 - (d) that the modifications fail to achieve, in whole or in part, the effect stated by GEMA by virtue of section 11A(7)(b);
 - (e) that the decision was wrong in law.
- 3.19 By virtue of section 11E(2) of EA89, in determining appeals under section 11C, the CMA must have regard, to the same extent as is required of GEMA, to the matters which GEMA must have regard:
- (a) in the carrying out of its principal objective under section 3A;
 - (b) in the performance of its duties under section 3A; and
 - (c) in the performance of its duties under section 3B and 3C.
- 3.20 Under section 11(3) of EA89, in determining the appeal, the CMA may have regard to any matters that GEMA was not able to have regard to save that the CMA must not have regard to matters that GEMA would not have been

¹⁸ EA89, section 11C(3).

¹⁹ See [Permission to appeal decision](#).

entitled to have regard to in reaching its decision had it had the opportunity of doing so.

- 3.21 This is the first time that an appeal had been brought under section 11C of EA89 and there is therefore no directly applicable precedent which dealt with the approach to be taken in determining the present appeal, and in particular the standard of review that the CMA was required to apply in considering whether GEMA's decision was wrong on one of the prescribed statutory grounds. However, in making our decision, we have drawn on the approach taken in other regulatory appeal contexts and have taken account of the submissions on the statutory framework that we received in the course of this appeal and the separate appeal from BGT.
- 3.22 The appellant and GEMA both submitted that the CMA's role was not limited to reviewing the decision on traditional judicial review grounds. The DNOs also agreed with this approach. The appellant and the other slow-track DNOs referred to the government's response to the Department of Energy and Climate Change's (DECC's) consultation on the 'Implementation of the EU Third Internal Energy Package', which resulted in the introduction of the statutory appeal mechanism in EA89 and which states:
- It is the Government's intention that the proposed grounds for appeal for licence modification decisions also enable the appeal body to take into account the merits of the case in a similar manner. The Government considers the Competition Commission's approach in relation to code modifications to be helpful in this regard.
- 3.23 We agree that we are not limited to reviewing the decision on conventional judicial review grounds and that we are not only able, but required by EA89, to consider the merits of the decision under appeal, albeit by reference to the specific grounds of appeal laid down in the statute.
- 3.24 The appellant, GEMA and the other slow-track DNOs (with the exception of SSEPD) invited the CMA to adopt a similar approach to that taken by the Competition Commission (CC) in appeals under section 175 of the Energy Act 2004, and in particular the CC's decision on such an appeal in the *E.ON UK plc v GEMA: energy code modification* appeal (E.ON). Given that the grounds for allowing an appeal under the Energy Act 2004 are very similar to the grounds for allowing an appeal under section 11C of EA89, we agree that the *E.ON* decision is instructive as regards the proper approach to be taken in the present appeal.

3.25 Indeed, although we are not bound by the decision in *E.ON*, which concerns a different statutory appeal mechanism under a different legislative scheme, we consider that the decision accurately characterises the approach which the CMA should take in the present appeal.

3.26 In relation to the review of GEMA's exercise of discretion, in paragraph 5.11 of the *E.ON* decision, the CC stated that:

As a specialist appellate body charged with considering whether a decision of GEMA is wrong, the function of the CC is to provide accountability in relation to the substance of code modification decisions. However, leaving to one side errors of law, it is not our role to substitute our judgment for that of GEMA simply on the basis that we would have taken a different view of the matter were we the energy regulator.

3.27 Further, the CC took the view that the statutory test:

clearly admits of circumstances in which we might reach a different view from GEMA but in which it cannot be said that GEMA's decision is wrong on one of the statutory grounds. For example, GEMA may have taken a view as to the weight to be attributed to a factor which differs from the view we take, but which we do not consider to be inappropriate in the circumstances.

3.28 We consider that these observations are equally apposite for the standard of review which we must apply in the present context.

3.29 On issues of errors of fact, we note, and adopt, the CC's reliance on the decision of the Court of Appeal in *Azzicurazioni Generali Spa v Arab Insurance Group*²⁰ where the Court held that:

where the correctness of a finding of primary fact or of inference is in issue, it cannot be a matter of simple discretion how an appellate court approaches the matter. Once the appellant has shown a real prospect (justifying permission to appeal) that a finding or inference is wrong, the role of an appellate court is to determine whether or not this is so, giving full weight of course to the advantages enjoyed by any judge of first instance who has heard oral evidence. In the present case, therefore, I consider that (a) it is for us if necessary to make up our own mind about

²⁰ [2003] 1 WLR 577.

the correctness or otherwise of any findings of primary fact or inference from primary fact that the judge made or drew and which the claimants challenge, while (b) reminding ourselves that, so far as the appeal raises issues of judgment on unchallenged primary findings and inferences, this court ought not to interfere unless it is satisfied that the judge's conclusion lay outside the bounds within which reasonable disagreement is possible. In relation to (a) we must, as stated, bear in mind the important and well recognised reluctance of this court to interfere with a trial judge on any finding of primary fact based on the credibility or reliability of oral evidence.

- 3.30 We also agree that where the errors relate to evaluations of fact by GEMA rather than conclusions of primary fact then we should approach such evaluations in the same way that we approach the exercise of discretion.
- 3.31 Whilst there was substantial common ground between the appellant and GEMA as to the approach we should take in considering this appeal, we received, in the context of the BGT appeal, a submission from another slow-track DNO, SSEPD, which took issue with that approach as affording too great a margin of discretion to GEMA.
- 3.32 SSEPD pointed to the provisions of EA89 that required us to form our own view on certain matters such as whether the weight given to certain considerations was appropriate or whether proper regard had been given to certain matters.²¹
- 3.33 SSEPD also argued that the features of the EA89 appeals regime such as the wide scope for obtaining fresh evidence, the expertise of the CMA, its ability to appoint its own expert and its power to substitute its own decision for that of GEMA in the event that an appeal is allowed, among others, indicated that the appeals under EA89 are by way of rehearing.²²
- 3.34 Accordingly, SSEPD invited us²³ to adopt the approach taken in appeals under the Communications Act 2003. It noted that the Supreme Court had described such appeals as appeals 'on the merits' which involve a 'rehearing': *BT v Telefonica O2 UK (Telefonica)*.²⁴
- 3.35 We do not consider that an appeal under EA89 involves a rehearing where it is open to us to decide matters afresh untrammelled by GEMA's decision. Nor

²¹ At paragraphs 11–15 of its [submissions in the BGT appeal](#).

²² At paragraph 17 of its [submission in the BGT appeal](#).

²³ At paragraph 16 of its [submissions in the BGT appeal](#).

²⁴ [2014] UKSC 42 [2014] 4 All ER 907 at paragraph 24.

do we consider that SSEPD's submissions accurately characterise the approach to be taken in appeals under the Communications Act 2003. We note Jacob LJ's statement in *T-Mobile (UK) Ltd and another v Office of Communications*²⁵ on the nature of appeals on the merits under the Communications Act 2003:

... it is inconceivable that article 4 [of the Framework Directive], in requiring an appeal which can duly take into account the merits, requires Member States to have in effect a fully equipped duplicate regulatory body waiting in the wings just for appeals. What is called for is an appeal body and no more, a body which can look into whether the regulator has got something material wrong. That may be very difficult if all that is impugned is an overall value judgment based upon competing commercial considerations in the context of a public policy decision.

- 3.36 Nor do we consider that we are required in the present context to have conducted a re-run of GEMA's original decision-making process or to have held a *de novo* rehearing of all the evidence. The CMA must limit its consideration to the specific grounds of appeal set out in EA89, to the extent that such grounds are raised by the appellants. We think that a useful analogy can be drawn between the present appeal and the approach taken by the Competition Appeal Tribunal (CAT) in *BT v Ofcom* [2010] CAT 17 where the CAT stated, at paragraph 76, that:

By section 192(6) of the 2003 Act and rule 8(4)(b) of the 2003 Tribunal Rules, the notice of appeal must set out specifically where it is contended OFCOM went wrong, identifying errors of fact, errors of law and/or the wrong exercise of discretion. The evidence adduced will, obviously, go to support these contentions. What is intended is the very reverse of a *de novo* hearing. OFCOM's decision is reviewed through the prism of the specific errors that are alleged by the appellant. Where no errors are pleaded, the decision to that extent will not be the subject of specific review. What is intended is an appeal on specific points.

- 3.37 The appellant, GEMA and the other slow-track DNOs specifically referred us to the approach taken in relation to appeals brought under section 192 of the Communications Act 2003 which requires the CAT and the CC to consider appeals 'on the merits'. Whilst we agree with GEMA that there is no direct analogy with the present appeals given the different statutory appeal

²⁵ [2009] 1 WLR, paragraph 31.

provisions, we consider that the approach taken by the CAT and the CC in relation to appeals under the Communications Act 2003 is broadly analogous to the approach taken in *E.ON* and that it therefore also provides some helpful guidance as to the level of scrutiny which an appellate body with particular expertise such as the CMA should adopt in reviewing GEMA's decision in the present case.

- 3.38 In response to our provisional determination in the BGT appeal, SSEPD maintained that appeals under EA89 should be by way of a rehearing rather than a merits review of the Decision and that the CMA was required to substitute its views for those of GEMA. In addition, SSEPD argued that we had failed to recognise and apply the authoritative guidance of the Supreme Court in *Telefonica* in our provisional assessment of the appropriate standard of review.
- 3.39 We considered carefully and took into account the judgment in *Telefonica*. *Telefonica* concerns appeals under the Communications Act 2003. It does not deal with appeals under EA89. In that judgment, the Supreme Court stated that appeals under the Communications Act 2003 were by way of rehearing. We do not consider that the Supreme Court intended by this statement to depart from the approach taken by the courts in previous appeals under the Communications Act 2003. Indeed, it is clear from paragraph 24 of the Supreme Court's judgment that the Supreme Court was drawing a distinction between the appeals on the merits and appeals that are limited to points of law or orthodox judicial review grounds. The approach we have taken in the present case is not limited in this sense.²⁶ In any event, what a rehearing entails will depend on the circumstances.
- 3.40 In *Telefonica* the Supreme Court considered that the CAT was entitled (in the context of a rehearing on the merits) to make certain factual judgments. Again, that approach is entirely consistent with our approach in the present case, where we have not limited ourselves to errors of law or judicial review grounds, but have duly taken the merits of the case into account when considering whether any of the statutory grounds of appeal is made out.
- 3.41 We were accordingly not persuaded by SSEPD's argument that we are required by the statutory scheme to adopt the approach it put forward. The provisions of EA89 require the CMA to consider whether GEMA's decision was wrong by reference to the statutory grounds. We do not agree that the

²⁶ See, for example, *Vodafone and others v. Ofcom [2008] CAT 22* at paragraphs 46 and 47: 'As noted by the Tribunal on numerous occasions ... the way the Tribunal exercises its jurisdiction is likely to be affected by the particular circumstances under consideration ... the Tribunal may, depending on the circumstances, be slower to overturn certain decision where, as here there may be a number of different approaches which Ofcom could reasonably adopt (...)'.

provisions require the CMA to substitute its decision for that of GEMA simply because it would have reached a different view without enquiring as to whether that decision was wrong. We consider that the approach we have taken has enabled the CMA to engage with the merits of the decision under appeal and to conclude whether it was right or wrong in accordance with the statutory requirements. Nor do we think that the *Telefonica* decision requires us to adopt a different approach. Notably, the Supreme Court did not consider the extent to which an appellate body, in the context of what the Supreme Court describes as a 'rehearing' on the merits, should accord discretion to the regulator against whose decision an appeal is brought. It does not constitute a departure from the other authorities considered above which do deal with that issue.

- 3.42 Our view is therefore that the CMA should not substitute its views for GEMA's solely on the basis that it would have taken a different approach (eg on issues of the weight to be attached to particular considerations), but the standard of review goes further than the traditional heads of judicial review. The key question is whether GEMA made a decision that was wrong (on one of the prescribed statutory grounds). To that extent, the merits of GEMA's decision must be taken into account and we have done so.
- 3.43 Our determination in this appeal reflects the application of a standard of review that is in line with the approach set out above. We consider that this approach is consistent with the approach taken by the CC in energy code appeals, and by the courts in relation to appeals under the Communications Act 2003; it reflects the government's intention in implementing the relevant appeal provisions; and it accords with the submissions as to the standard of review put forward by the main parties in this appeal.

Nature of the Decision under review

- 3.44 In the context of the BGT appeal, we also received submissions from UKPN, which argued that the CMA must consider the effect of its findings of fact on all the relevant conclusions reached by GEMA.
- 3.45 Further, SSEPD submitted that GEMA's decision would have been 'an interrelated and integrated whole' and that disturbing one element of that decision may have knock-on effects on other parts of the decision.
- 3.46 SSEPD further submitted that allowing 'cherry-picking' would make the appeal process unfair, contending that the DNOs accepted the price control as a whole and that to consider one element in isolation would undermine the

global bargain struck by the DNOs.²⁷ SSEPD and UKPN pointed to the considerations that the CMA must take into account when making its determination. SSEPD supported its submission with evidence from Professor Littlechild.

- 3.47 EA89²⁸ provides that an application for permission to appeal must be accompanied by all such information required by the *Competition Commission Energy Licence Modification Appeals Rules (CC14)* as adopted by the CMA ('the Rules'). The Rules²⁹ state that a person who wishes to apply for permission to appeal must state in his notice of appeal the grounds of appeal on which he relies and must include a statement of facts and reasons supporting each ground of appeal on which he is relying. We consider that these provisions clearly envisage that we must determine the appeal 'through the prism of the specific errors' alleged by the appellant.
- 3.48 Thus, we are required to consider whether the Decision was wrong on one of the prescribed statutory grounds, by reference to the grounds set out in the appellant's Notice of Appeal.³⁰ It is only if we find that this is the case, that we may allow the appeal.
- 3.49 We do not disagree that price control decisions may be taken and accepted on a global basis or reflect an 'in the round' assessment by GEMA and the DNOs. However, whilst we accept that, to some extent, the slow-track DNOs that did not appeal accepted the price control level as a global bargain, we do not see why this is relevant, in itself, to the position of an individual DNO or other appealing party that did choose to appeal. Moreover, whilst we accept that it may in some circumstances be necessary to take care that overturning one aspect of a complex regulatory decision does not have knock-on consequences for other, unappealed aspects of the Decision, we did not see evidence that persuaded us that there was a risk of such knock-on consequences in the two appeals we considered.
- 3.50 We note SSEPD's submissions in response to the CMA's provisional determination in the BGT appeal that we should not set the bar too high in terms of recognising when there is a relevant degree of interconnectedness between matters under appeal and other aspects of a decision. Further, SSEPD argued that there was no requirement to adduce evidence as to the integrated and holistic nature of the price control and expressed concerns that

²⁷ At the hearing with the slow-track DNOs on the BGT appeal, SSEPD noted that its position was not that an appeal could never succeed without reopening the whole price control.

²⁸ At paragraph 1(4) of Schedule 5A.

²⁹ At paragraphs 5.1–5.3.

³⁰ See paragraph 3.1 of the *Energy Licence Modification Appeals: Competition Commission Guide (CC15)* (September 2012), which was adopted by the CMA on 13 February 2014.

the CMA would not actively look for knock-on consequences. SSEPD submitted that evidence as to knock-on consequences had been provided.

- 3.51 We consider that the question as to whether there are sufficient links between the parts of the Decision which are challenged and parts which are not challenged must be decided on a case-by-case basis taking into account the circumstances of each case. Where there are such links, we would, in the first instance, have expected GEMA to have highlighted these and addressed them in its response. GEMA merely stated in its Response³¹ that the decision is ‘made up of a number of discrete but inter-connected determinations that together give rise to the decision itself’. We accept, however, that if, in the evidence submitted to the CMA, such links become apparent, we may take this into account where appropriate.
- 3.52 SSEPD referred to the existence of links between the IQI, smart grid benefits (SGBs) and real price effects (RPEs). We do not consider that in the BGT appeal these links are sufficient to undermine our determination to allow the BGT appeal in respect of the IQI only without reopening other unappealed parts of the Decision. In its submissions in response to our provisional determination in the BGT appeal, UKPN argued that there was a need to consider the relationship between the IQI and SGBs. UKPN argued that when considering the remedy in the BGT appeal, the CMA should take into account the outcome of this appeal and the other elements of the IQI. In light of the complexity, UKPN invited us to remit the matter back to GEMA for redetermination. Other slow-track DNOs in this appeal and the BGT appeal invited us to apply the outcome of this appeal to other slow-track DNOs.³² However, NPg was the only slow-track DNO to challenge GEMA’s Decision and, by its Notice of Appeal, NPg challenged only the modifications made to its licences.³³
- 3.53 We consider that the approach that we have adopted in relation to the issues of cherry-picking and ‘in-the-round’ strikes the right balance between recognising our role as an appeal body whilst at the same time recognising that price control decisions are complex.
- 3.54 SSEPD and UKPN also invited us to have regard to the matters set out at section 3A of EA89 and which we have described in paragraphs 3.6 to 3.14 above. As we set out above, we are required to take these considerations into account when determining this appeal and we have done so.

³¹ [GEMA’s Response](#), paragraph 69.

³² See paragraph 4.160

³³ See [NPg’s Notice of Appeal](#), paragraphs 1.2 & 1.4.

Materiality

- 3.55 GEMA argued in relation to some of the grounds alleged by NPg that even if it fell into error, any such errors were not material. The appellant argued that the alleged errors it had identified are all material.³⁴
- 3.56 We understand that it was common ground between the parties that we should only interfere with the Decision if we consider that the error identified is material, and this is obviously correct.
- 3.57 We drew to some extent on the approach to materiality taken by the CC in its price control determinations under the Communications Act 2003.³⁵ Accordingly, we have not found that GEMA was wrong unless we are satisfied that the error found had a material effect on the price control.
- 3.58 We consider that 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. 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 whether the error relates to a matter of economic or regulatory principle. This list is not intended to be exhaustive.³⁶

The CMA's powers when allowing an appeal

- 3.59 By virtue of section 11F, if the CMA allows, to any extent, an appeal in relation to a price control, it must do one or more of the following:
- (a) quash the decision (to the extent that the appeal is allowed);
 - (b) remit the matter back to GEMA for reconsideration and determination in accordance with any direction given by the CMA;
 - (c) 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.

³⁴ NPg's Notice of Appeal, paragraph 1.7.

³⁵ *The Carphone Warehouse Group plc v Office of Communications* (31 August 2001) and *BT v Ofcom and BskyB and TalkTalk v Ofcom* (27 March 2013).

³⁶ See, for example, paragraph 1.60 of the determination in *BT v Ofcom and BskyB and TalkTalk v Ofcom*.

Conduct of the appeal

- 3.60 We have conducted this appeal in accordance with the Rules and the associated [Energy Licence Modification Appeals: Competition Commission Guide \(CC15\)](#) (‘the Guidance’). In particular, we sought to be as transparent as possible about our procedures and have had regard to the overriding objective (‘the Objective’) of the Rules which is to enable the CMA to dispose of appeals fairly and efficiently within the time period prescribed. We recognised that interested third parties should be afforded opportunities to submit views or respond to the grounds of appeal, as appropriate, and having regard to the nature of their interest.
- 3.61 In accordance with the Objective, we published on our website:
- (a) NPg’s Notice of Appeal;
 - (b) a note making available to any party, on request, non-confidential versions of submissions received about the permission stage and the supporting information submitted with NPg’s Notice of Appeal;
 - (c) a note inviting interested third parties to contact us should they wish to make submissions in response to the Notice of Appeal; and
 - (d) our decision to grant permission to appeal together with a press notice inviting interested third parties to make representations or observations about the grounds on which the appeal has been brought.
- 3.62 Following the granting of permission to appeal, the CMA held an appeals management conference (AMC) with the main parties and third parties that had expressed an interest in making submissions. The purpose of the AMC was to discuss how the appeal would be conducted at each stage.
- 3.63 Representatives of the main parties, non-appealing slow-track DNOs, Citizens Advice and First Utility Limited³⁷ were present. After discussion with participants, we wrote to all parties during the course of the appeal to set out the procedures that would apply. We adapted these proposals in the light of representations from those represented at the AMC. Relevant parts of the process consistent with the Objective included:
- (a) establishing a confidentiality ring to ensure the efficient sharing of confidential information between GEMA, the appellant and third parties;

³⁷ On 15 April 2015, First Utility Limited confirmed that it no longer wished to be involved in or make submissions in respect of the appeal.

- (b) inviting responses to the Notice of Appeal from interested third parties and keeping an open mind about whether to take into account any submissions from non-appealing slow-track DNOs if and when appropriate;
- (c) inviting NPg to submit a reply (the 'Reply') to GEMA's response to its Notice of Appeal (the 'Response');
- (d) holding hearings with the appellant and the respondent;
- (e) inviting observers from all parties within the confidentiality ring to either attend hearings (including representatives from the non-appealing slow-track DNOs to be present at the NPg appeal hearings) or receive copies of transcripts and/or relevant papers;
- (f) permitting written closing submissions from NPg following the hearing with GEMA; and
- (g) consulting the main parties and interested third parties on our provisional determination.

Submissions received

- 3.64 On 22 April, we received responses to NPg's Notice of Appeal from GEMA, BGT, Citizens Advice and UKPN. Separately, we invited and received submissions from SPEN, SSEPD and UKPN regarding their status as interested third parties in the NPg appeal.
- 3.65 We did not invite submissions on the specific grounds from non-appealing slow-track DNOs in response to NPg's Notice of Appeal. We kept open the option to take into account any submissions received or seek submissions from these DNOs at any stage in the process. Further, we included these DNOs in the NPg confidentiality ring, permitted them to see all submissions and correspondence, and invited them to attend the main party hearings as observers. That said, we note that these are parties that chose not to appeal the Decision. As such, neither the transparency of our procedures nor our determination in this appeal should be construed as having any effect on the RIIO-ED1 price controls to which the non-appealing slow-track DNOs are subject.
- 3.66 On 7 May, we received the Reply from NPg to GEMA's Response.

Hearings

- 3.67 On 15 April, we asked GEMA, BGT and NPg to deliver a jointly agreed industry background presentation to the appeal group and staff team.
- 3.68 On 22 April, we held a clarification hearing with GEMA in order to understand more about how and why it reached certain decisions in respect of the specific issues raised in the appeal. A non-confidential copy of the transcript was sent to NPg, the non-appealing slow-track DNOs, Citizens Advice and EDF Energy.
- 3.69 On 12 June, we held a hearing with NPg about its appeal. Representatives of GEMA and the non-appealing slow-track DNOs attended as observers.
- 3.70 On 17 June, we held a hearing with GEMA about NPg's appeal. Representatives of NPg and the non-appealing slow-track DNOs attended as observers.

Closing submissions

- 3.71 We invited all hearing parties to make any closing statements at their respective hearings. In recognition of the sequencing of hearings and the fact that observers were not permitted to participate in the oral hearings, we additionally invited NPg to make a written closing submission after the hearing with GEMA on 17 June.

Provisional determination

- 3.72 We sent our confidential provisional determination to the main parties and interested third parties on 29 July 2015 and invited comments by 12 August 2015. We have taken into account responses received in our final determination.

Consultation with other slow-track DNOs

- 3.73 We did not invite submissions from non-appealing slow-track DNOs on the specific grounds raised in NPg's Notice of Appeal. We kept open the option to take into account any submissions received or seek submissions at any stage in the process and ensured that these parties received all submissions and correspondence on the appeal. Two non-appealing slow-track DNOs (UKPN and SPEN) responded to our provisional determination. We consider the points raised in these responses in our decision on the remedy in relation to ground 1 of NPg's appeal.

3.74 Following our provisional determination, we also reviewed the original submission received from UKPN in response to NPg's Notice of Appeal. Having done so, we considered that the points raised had either been covered in GEMA's Response or that they were consistent with our final determination. As such, we have not addressed them specifically in our final determination nor did we invite comment on them from NPg or GEMA. We note that UKPN maintained its position that it was an interested third party. In the light of our final determination and the submissions received, we did not consider it necessary to reach a concluded view on this issue.

Structure of our determination on the grounds of appeal

3.75 The remainder of this document considers NPg's specific grounds of appeal. For each, we set out the background to the appeal ground including, to the extent necessary, an explanation of any technical issues and a summary of how GEMA explained the relevant decision during the consultation on RIIO-ED1. We then summarise: the appellant's case based on its Notice of Appeal; GEMA's Response; NPg's Reply; comments from interested third parties where relevant; and any points made by parties in their responses to our provisional determination. In reaching our conclusion on each ground, we took into account the written evidence and supporting documentation submitted (see Conduct of Appeal section) and the discussion at each of the oral hearings. Where relevant, we draw on this material in our assessment of each ground.

4. Ground 1: smart grid benefits

Background

4.1 NPg's first ground concerns GEMA's approach to SGBs. SGBs are forecast net cost savings resulting from the application of 'smart grid technologies', and other innovation, which can enable more effective monitoring of, and response to, electricity supply and demand. NPg argued that GEMA was wrong to reduce its view of NPg's totex following consideration of SGBs.

4.2 GEMA's approach to SGBs changed during the consultation on RIIO-ED1. At Draft Determinations, it proposed a departure from the approach in the strategy documents and set out proposals for a quantified, specific adjustment for SGBs GEMA considered had been underestimated in DNOs' business plans. At Final Determinations, GEMA maintained its view that such an adjustment was necessary but changed the methodology for determining the appropriate adjustment for each DNO. The differences in its approach and methodology between the Draft Determinations and Final Determinations, in

particular, are relevant to this appeal ground and we therefore describe them in detail before considering NPg's ground of appeal and GEMA's response.

Strategy stage

- 4.3 Under a heading of 'Facilitating the low carbon future', the Strategy Decision said that 'DNOs' key challenge for RIIO-ED1 is ensuring that they will be able to connect the new low carbon loads required to achieve the national emission targets'.³⁸ DNOs' behaviour would be driven by a coherent and balanced package of outputs and incentives. It went on: 'smart grid solutions will be an important way of delivering the outputs at reasonable cost'.³⁹ GEMA emphasised the importance of SGBs and noted that the RIIO-ED1 period represented 'an opportunity to start to deploy smart grid solutions and get prepared for more radical network changes that may be required in the future'.⁴⁰
- 4.4 The Strategy Decision noted concerns from stakeholders that DNOs may be slow to deploy smart grid solutions. DNOs were asked to demonstrate how they had considered using smart grid solutions as part of their core business if they wanted to be fast-tracked. There was, however, no quantitative assessment of SGBs in the standard cost assessment framework;⁴¹ SGBs are, by definition, costs foregone.

Draft Determinations

- 4.5 On reviewing the revised business plans from the slow-track DNOs submitted in March 2014, GEMA concluded in its Draft Determinations that the savings it was able to identify from the use of smart grid and smart meter data were not sufficient.⁴² To reflect this conclusion, it proposed a downward adjustment to the totex levels resulting from its cost assessment benchmarking. The size of the SGB adjustment was based on GEMA's estimate of what it considered ought to have been incorporated in DNOs' business plans for RIIO-ED1, but were not. The total proposed SGB adjustment across all of the slow-track DNOs was a reduction of £396 million. For NPg, the proposed reduction was £81 million.
- 4.6 At the Draft Determinations stage, GEMA calculated the SGB adjustment for each DNO by:

³⁸ Strategy Decision: [Outputs, incentives and innovation annex](#), paragraph 1.3.

³⁹ *ibid*, paragraph 1.5.

⁴⁰ *ibid*, paragraph 3.16.

⁴¹ [GEMA's Response](#), paragraph 151(b).

⁴² [Draft Determinations](#), paragraph 4.32.

- (a) assessing the level of smart grid savings embedded in DNOs' business plans ('embedded SGBs');
- (b) estimating the total level of smart grid savings that DNOs overall could have reasonably included in their business plans for RIIO-ED1, and allocating this between DNOs ('potential SGBs'); and
- (c) setting the SGB adjustment equal to its estimate of potential SGBs less embedded SGBs for each DNO.

4.7 GEMA identified £405 million of embedded SGBs for the DNOs in aggregate in its Draft Determinations,⁴³ £36 million of which was for NPg. This level of embedded SGBs was calculated by identifying a list of what was to be treated as a 'smart solution', and then identifying the cost savings associated with the usage of such solutions.

4.8 By contrast, GEMA considered that the DNOs could have reasonably included £943 million⁴⁴ of smart grid savings in their business plans for RIIO-ED1. This assessment of potential SGBs was based on three sources:

- (a) **The latest DECC Impact Assessment for the roll-out of smart meters:** GEMA pointed to this as indicating that around £190 million of savings should accrue to DNOs over the RIIO-ED1 period.
- (b) **The Transform model** (which had been developed by DNOs in the context of the smart grids forum⁴⁵): GEMA said that DNO usage of this model indicated that, on average, 23 to 25% of reinforcement costs could be avoided at a GB level by using smart solutions. GEMA said that on this basis, £653 million of SGBs could have been included across all of the DNOs' business plans.
- (c) **ENWL's business plan:** GEMA said that only ENWL considered savings from the use of smart grids in cost areas other than reinforcement (ENWL identified £14.5 million of savings). GEMA said that applying ENWL's identified saving (as a percentage of network operating costs) to all DNOs indicated possible savings of more than £200 million. GEMA noted uncertainty as to the level of savings achievable and some risk of double

⁴³ Including the fast-tracked DNOs.

⁴⁴ [Draft Determinations](#), Business Plan Expenditure Assessment, paragraph 11.24.

⁴⁵ The [smart grids forum](#) was created by DECC and Ofgem to support the UK's transition to a secure, safe, low carbon, affordable energy system. The main issue discussed in the DECC/Ofgem smart grids forum is how electricity network companies will address significant new challenges as they play their role in the decarbonisation of electricity supply).

counting, and judged that £137 million of savings should have been included in DNOs' business plans.

4.9 GEMA's calculation of the SGB adjustment proposed in its draft determinations is summarised in Table 3 below.

Table 3: GEMA's proposed SGB adjustments at Draft Determinations

	<i>£ million</i>		
	<i>Potential SGBs*</i>	<i>Embedded SGBs</i>	<i>SGB slow-track adjustment†</i>
All DNOs	943	405	Not applicable
Slow-track DNOs (ie excluding WPD)	694	296	396
NPg	118	36	81

Source: Draft Determination, Annex 'Business Plan Expenditure Assessment', Tables 11.2, 11.3 and 11.4.

*GEMA estimated potential SGBs of £980 million but scaled this estimate down to £943 million to reflect the difference between its view of efficient totex and the levels of totex submitted by the DNOs.

†No SGB adjustment was proposed for WPD as it had been fast-tracked ahead of the Draft Determinations.

Final Determinations

4.10 At Final Determinations, having reviewed the responses to its Draft Determinations, GEMA maintained its view that an SGB adjustment was appropriate. It changed its approach to assessing both embedded SGBs and potential SGBs. The effect of these changes was that the total SGB adjustment that GEMA applied was £322 million across the slow-track DNOs in total, and £42 million for NPg.

4.11 GEMA's estimate of identified embedded SGBs increased from £405 million at the Draft Determinations to £641 million, with NPg's embedded SGBs increasing from £36 million to £91 million. This increase resulted from a change in the definition GEMA used to determine whether a solution should be treated as 'smart' (which included a broader set of solution types) and a review of further information provided by DNOs in response to the Draft Determinations. On the latter, GEMA said that it accepted the majority of DNO claims in relation to savings being smart, but that for some solutions it did not accept the level of savings that the particular DNO had claimed, and in some cases it had not received sufficient evidence that the solutions were either smart or innovative.

4.12 The overall level of potential SGBs that GEMA identified across all DNOs in its Final Determinations was £963 million, very similar to the level it had identified in its Draft Determinations (£943 million). However, GEMA arrived at its view of potential SGBs in a different way from that in the Draft Determinations. In particular, GEMA based its calculations on the levels of SGBs identified in DNOs' business plans, and did not make use of other,

external evidence to calculate potential SGBs as it had done at the Draft Determinations stage.

- 4.13 Its approach at Final Determinations was to compare its identified level of embedded SGBs with the submitted costs from different DNOs in order to identify a benchmark level that GEMA considered should be achievable. This was done separately for two broad areas: reinforcement costs⁴⁶ which were broken down into three further subcategories; and a second category – referred to as ‘Other’ – which included non-reinforcement cost subcategories in relation to which at least one DNO had identified some SGBs.⁴⁷
- 4.14 For two of the reinforcement categories, LV-EHV (Low Voltage to Extra High Voltage)⁴⁸ general reinforcement and 132kV general reinforcement, GEMA set the benchmark at the upper quartile level of the DNO’s SGBs in these categories. For the other reinforcement category, Fault-level reinforcement,⁴⁹ GEMA considered that an upper quartile approach was not appropriate given its view that there was a small number of data points. It therefore set the benchmark equal to 75% of the highest identified level of DNO SGBs. For the ‘Other’ category, GEMA set the benchmark equal to the highest level of DNO SGBs identified in the category as a whole.
- 4.15 The output from GEMA’s calculation of the SGB adjustment applied in its Final Determinations is summarised in Table 4.

Table 4: GEMA’s SGB adjustments at Final Determinations

	<i>£ million</i>		
	<i>Potential SGBs</i>	<i>Embedded SGBs</i>	<i>SGB slow-track Adjustment*</i>
All DNOs	963	641	Not applicable
Slow-track DNOs (ie excluding WPD)	798	476	322
NPg	134	91	42

Source: Final Determinations, Annex ‘Business Plan Expenditure Assessment’ Table 11.1.

*No SGB adjustment was applied to WPD as it had been fast-tracked ahead of Draft Determinations.

Summary of NPg’s appeal on ground 1

- 4.16 NPg separated its appeal ground 1 into four sections (A–D). We summarise its main arguments on each section, GEMA’s response on each and NPg’s

⁴⁶ Reinforcement is the term used to describe work carried out on the network in order to enable new load growth, both demand and generation, which is not attributable to specific customers.

⁴⁷ The Other category included asset replacement and refurbishment, Troublecall, ONIs, Inspection and maintenance, Tree cutting, Operational IT and telecoms.

⁴⁸ This range covers voltages up to, but not including, 132kV.

⁴⁹ Work carried out on the existing network where the prime objective is to alleviate fault-level issues associated with switchgear or other equipment.

reply, before assessing all the evidence and arguments on SGBs and reaching a conclusion on NPg's appeal ground 1.

Ground 1A: unjustified, disproportionate and discriminatory

4.17 NPg argued in ground 1A that GEMA's decision to adjust for SGBs over and above its general benchmarking exercise was unjustified, disproportionate and discriminatory. NPg argued that GEMA's approach was materially flawed because:

- (a) GEMA wrongly departed from the proportionate approach it had itself indicated would be adopted under RIIO to address issues where substantially acceptable plans had been submitted but some further work would be required to render the plans satisfactory.⁵⁰
- (b) There was no good basis for an entirely new approach:
 - (i) Following extensive criticism of the approach that GEMA took in its Draft Determinations, a wholly different approach to the assessment of SGBs was adopted for Final Determinations; GEMA dropped its reliance on 'external evidence' which NPg argued was in any event wrong.
 - (ii) GEMA pointed to having seen evidence that 'a number of DNOs' have not embedded sufficient SGBs,⁵¹ but if the supposed inefficiency was limited to certain DNOs then this would provide no basis for a generalised SGB adjustment, as such relative inefficiency would have been addressed in the main benchmarking exercise.
 - (iii) If the supposed inefficiency was industry-wide, GEMA's benchmarking in the Final Determinations simply showed that the majority of companies would fail to meet a benchmark set at the upper quartile or at the best performing company level. This was a mathematical inevitability rather than evidence of industry-wide inefficiency: benchmarking measures relative and not absolute performance and therefore could not evidence inefficiency on the part of all DNOs.

⁵⁰ NPg's Notice of Appeal, paragraph 6.41.

⁵¹ Final Determinations, Business Plan Expenditure Assessment, paragraph 11.36.

- (iv) GEMA's claim that the emergence of SGBs should result in DNOs obtaining greater levels of ongoing efficiency savings than they had historically was also flawed:⁵²
- GEMA identified no robust, objective evidence to support its expectation that SGBs should result in DNOs obtaining greater levels of savings;⁵³ and
 - it was wholly artificial to allocate efficiencies between two categories ('conventional' and 'smart') and to assume (without evidence) that 'conventional' efficiencies would continue to be available at the same rate as historically, and that 'smart' efficiencies will be incremental to those conventional efficiencies.⁵⁴
- (v) GEMA's reasoning was circular as it raised the very question it sought to answer: what is the magnitude of available SGBs?⁵⁵
- (c) GEMA's process was discriminatory as it imposed – without justification – a wholly different measure of SGBs from that properly assessed to constitute a 'good strategy' in GEMA's decision at the fast-track stage.⁵⁶

Ground 1B: inappropriate and flawed methodology

4.18 In its ground 1B, NPg argued that GEMA's Final Determinations methodology was inappropriate and suffered from serious methodological flaws:

- (a) Double counting: GEMA did not adequately reflect that it had already captured £82 million of SGB savings in its initial benchmarking exercise.⁵⁷ This resulted in double counting in its SGB assessment that GEMA did not resolve adequately.⁵⁸
- (b) Failure to factor in prevailing levels of efficiency: less efficient DNOs would be expected to have greater scope for smart savings, because savings – whether generated by smart or conventional means – brought a DNO closer to the frontier level of totex necessary to deliver their agreed outputs and performance targets.⁵⁹

⁵² NPg's Notice of Appeal, paragraph 6.51.

⁵³ NPg's Notice of Appeal, paragraph 6.52.

⁵⁴ NPg's Notice of Appeal, paragraph 6.52.

⁵⁵ NPg's Notice of Appeal, paragraph 6.53.

⁵⁶ NPg's Notice of Appeal, paragraph 6.54.

⁵⁷ NPg's Notice of Appeal, paragraph 6.59.

⁵⁸ NPg's Notice of Appeal, paragraph 6.60.

⁵⁹ NPg's Notice of Appeal, paragraphs 6.63 & 6.64.

- (c) Distorted incentives: GEMA's approach wrongly distorted DNO incentives by rewarding savings from smart solutions over conventional ones.⁶⁰

Ground 1C: errors in implementation

- 4.19 In its ground 1C, NPg argued that GEMA made material errors in implementing its SGB approach in the Final Determinations, and therefore that its approach was misapplied, for the following reasons:
- (a) GEMA made a basic mathematical error in calculating the percentage of smart savings to be applied to NPg (and other slow-track DNOs).⁶¹ In particular, NPg argued⁶² that GEMA wrongly calculated this percentage as: $100 \times (\text{savings} / \text{submitted costs})$. NPg said⁶³ this was wrong as submitted costs already incorporated submitted SGBs. It added⁶⁴ that GEMA should instead have used submitted costs that did not incorporate any SGBs as the denominator ('conventional costs').
- (b) GEMA made a mathematical consistency error because the benchmark level of smart savings was calculated across the 'Other' pot as an overall category, but the level of smart savings identified as embedded in NPg's business plan was calculated by treating each subcategory within 'Other' as individual and separate.⁶⁵ NPg argued⁶⁶ that the effect of this inconsistency was that it was arbitrarily penalised with a higher level of SGB adjustment than would have arisen from the consistent application of GEMA's approach.
- (c) For fault-level reinforcement spending:
- (i) GEMA was wrong to rely on the results of its benchmarking to adjust revenue allowances without first 'reality checking' whether – as a matter of engineering and commercial reality – NPg would be able to realise the savings identified.⁶⁷ The fault-level reinforcement benchmark was set equal to 75% of the savings identified in the plans of SSES, and NPg argued that those plans related to different

⁶⁰ NPg's Notice of Appeal, paragraph 6.68.

⁶¹ NPg's Notice of Appeal, paragraph 6.74.

⁶² NPg's Notice of Appeal, paragraphs 6.76 & 6.77.

⁶³ NPg's Notice of Appeal, paragraph 6.76.

⁶⁴ NPg's Notice of Appeal, paragraph 6.76.

⁶⁵ NPg's Notice of Appeal, paragraph 6.82.

⁶⁶ NPg's Notice of Appeal, paragraph 6.87.

⁶⁷ NPg's Notice of Appeal, paragraph 6.90.

voltages, were not proven, and would not in any event be applicable to NPg's network.⁶⁸

- (ii) GEMA wrongly disregarded data from DNOs which identified zero SGB savings,⁶⁹ when that data simply reflected companies' expenditure on projects where smart solutions could sensibly be deployed. NPg argued that there were sufficient data points to benchmark on an upper quartile basis and GEMA was wrong not to do so.⁷⁰
 - (iii) GEMA relied on a single unrepresentative outlier to set the benchmark. SSES's percentage level of SGBs in this cost area – 41.1% – was an outlier: the nearest DNO percentage was 20.7% (ENWL) and the industry upper quartile was 10.7%.⁷¹
- (d) GEMA wrongly refused to include savings of £18.7 million that NPg had identified as smart in general LV/HV reinforcement.⁷²

Ground 1D: unfair process

4.20 NPg argued that the process was unfair and breached its legitimate expectations.⁷³ NPg said that GEMA's change in approach to SGBs, and change in its definition of 'smart', were introduced very late in the overall process with inadequate consultation.⁷⁴ NPg said that it was not given an opportunity to comment intelligently on novel and significant issues, including GEMA's decision to change its definition of 'smart', and GEMA's resulting decision not to classify certain of NPg approaches as 'smart'.⁷⁵

Summary of GEMA's response to appeal ground 1

4.21 GEMA argued that ensuring that DNOs were not allowed to recover charges for costs they could reasonably be expected to avoid through the adoption of smart solutions was consistent with the approach indicated to DNOs at the outset of the price control process and was in line with GEMA's obligations to consumers.⁷⁶ GEMA said that its proportionate approach meant that the slow-

⁶⁸ NPg's Notice of Appeal, paragraph 6.91.

⁶⁹ NPg's Notice of Appeal, paragraph 6.92.

⁷⁰ NPg's Notice of Appeal, paragraph 6.92.

⁷¹ NPg's Notice of Appeal, paragraph 6.94(a).

⁷² NPg's Notice of Appeal, paragraph 6.96.

⁷³ NPg's Notice of Appeal, paragraph 6.123.

⁷⁴ NPg's Notice of Appeal, paragraph 6.107.

⁷⁵ NPg's Notice of Appeal, paragraph 6.112.

⁷⁶ GEMA's Response, paragraph 155.

track assessment would involve greater scrutiny in those areas of a DNO's business plan that were less satisfactory: for NPg that meant greater scrutiny of proposed expenditure to ensure efficient cost.⁷⁷

- 4.22 GEMA said that it continued to have confidence in the data sources it had referred to at the Draft Determinations stage, which GEMA said largely originated with or had been relied upon by the DNOs.⁷⁸ GEMA said that those sources continued to support its expert judgement that the SGBs which the DNOs could reasonably be expected to realise were significantly higher than the forecast levels in the DNOs' business plans, and that following DNO criticisms of the use of external evidence in the Draft Determinations, GEMA adopted a more conservative approach.⁷⁹
- 4.23 GEMA contended that no single DNO's business plan accounted for the full range of SGBs that could be expected, and that benchmarking across categories would not be an effective way of identifying the proper extent of SGBs as each DNO was inefficient in at least one such category.⁸⁰ GEMA said that benchmarking was applied simply to identify the appropriate reduction to each DNO's allowance, not to identify inefficiency.⁸¹
- 4.24 GEMA argued that it was therefore correct to conclude that the emergence of SGBs should result in greater levels of ongoing efficiency savings: SGBs represented a return on the investment of public funds such as through the Low Carbon Network Fund (LCNF) and the smart metering programme, where the purpose of this investment was to identify efficiencies over and above conventional ongoing efficiency savings.⁸²
- 4.25 GEMA said that the proportionately lower SGB allowances applied to WPD were a direct product of it having been fast-tracked, and that the different treatment of NPg and the other slow-track DNOs was not in any way discriminatory.⁸³ GEMA noted that while WPD was the only DNO group to be fast-tracked, all DNOs had an equal and fair opportunity to qualify for fast-tracking.⁸⁴

⁷⁷ [GEMA's Response](#), paragraph 155(b).

⁷⁸ [GEMA's Response](#), paragraph 154.

⁷⁹ [GEMA's Response](#), paragraphs 153 & 154.

⁸⁰ [GEMA's Response](#), paragraph 156.

⁸¹ [GEMA's Response](#), paragraph 156(b).

⁸² [GEMA's Response](#), paragraph 158(i).

⁸³ [GEMA's Response](#), paragraph 162.

⁸⁴ [GEMA's Response](#), paragraph 162.

- 4.26 On ground 1B, GEMA did not agree that its approach involved double counting:⁸⁵
- (a) GEMA recognised that there might be material double counting and therefore took the following steps to seek to address that risk:⁸⁶
 - (i) setting the SGB benchmark at the upper quartile level in two reinforcement categories, which reduced the adjustment for these categories by £108 million;
 - (ii) setting the SGB benchmark at 75% of the best performer in the other reinforcement category, which reduced the adjustment by £16 million; and
 - (iii) removing the LV fault finding category from ‘Other’ as the same DNO set the benchmark in that category in the cost assessment, which reduced the adjustment by £150 million.
 - (b) GEMA considered that in the light of the steps set out above, the residual risk of double counting was either non-existent or immaterial.⁸⁷
- 4.27 GEMA did not agree with NPg’s criticisms in relation to prevailing levels of efficiency:
- (a) The SGB analysis was not affected by the prevailing level of efficiency of any one DNO. The SGB adjustment was not a measure of ‘catch up’ efficiency (which was dealt with by comparative benchmarking); it was designed to shift the efficiency frontier.⁸⁸
 - (b) GEMA disagreed with NPg’s comment that the benchmarks in the SGB models were set by DNOs that trailed the efficient frontier in the cost models: of the ten DNOs at or above the benchmarks in SGB assessment, six were among the good performers in the relevant comparative cost assessment.⁸⁹
 - (c) The SGB adjustment was scaled in proportion to the size of the allowance produced by the cost assessment so more extensive reductions to a DNO’s costs under the cost assessment exercise (as a result of identified

⁸⁵ [GEMA’s Response](#), paragraph 163(a).

⁸⁶ [GEMA’s Response](#), paragraph 163(a).

⁸⁷ [GEMA’s Response](#), paragraph 163(a)(ii).

⁸⁸ [GEMA’s Response](#), paragraph 163(b) (i)–(ii).

⁸⁹ [GEMA’s Response](#), paragraph 163(b)(iv)–(v).

inefficiency) would also have the effect of applying a higher reduction to the level of embedded benefits recognised.⁹⁰

4.28 GEMA did not agree that its approach rewarded savings from smart over conventional solutions:

- (a) The price control determined allowable revenues, and over the price control period it was open to DNOs to deploy whatever solutions they considered were best placed to reduce their costs.⁹¹
- (b) GEMA's approach to smart benefits had the effect of incentivising DNOs to implement the cost savings arising from publicly funded trials. If DNOs decided not to deploy those technologies, the cost burden of not achieving savings as a result should fall on DNOs and not on consumers.⁹²

4.29 On NPg's ground 1C, GEMA accepted⁹³ that a mathematical error was made when it used submitted costs rather than submitted costs excluding SGBs when calculating the percentage of smart savings to be applied to NPg. GEMA said⁹⁴ that it did not consider that this error was material, and did not accept that the effect of the error was any significant overestimation of the SGBs that DNOs could reasonably be expected to achieve. GEMA considered⁹⁵ that it could reasonably have adopted a more stringent view of the level of SGBs to be recognised in two areas:

- (a) GEMA removed £274 million of potential SGBs from its assessment in order to mitigate against the risk of double counting, and even if the highest NPg figure of £82 million of double-counted benefits was used, this left an additional £192 million that GEMA removed.⁹⁶
- (b) GEMA's assessment of SGBs for the Other category as a whole rather than by subcategory reduced the SGBs anticipated for all DNOs by £137 million and for NPg by £17 million.⁹⁷

⁹⁰ GEMA's Response, paragraph 163(b)(vii).

⁹¹ GEMA's Response, paragraph 163(c)(i).

⁹² GEMA's Response, paragraph 163(c)(iii).

⁹³ GEMA's Response, paragraph 165(a).

⁹⁴ GEMA's Response, paragraph 165(b).

⁹⁵ GEMA's Response, paragraph 165(b)(iii).

⁹⁶ GEMA's Response, paragraph 165(b)(i).

⁹⁷ GEMA's Response, paragraph 165(b)(ii).

4.30 GEMA disagreed⁹⁸ that it made a mathematical consistency error, and argued that:

- (a) the approach it took was one of a number of different possible approaches that were reasonably open to GEMA, and NPg had identified no error of principle in the judgement to adopt that approach;⁹⁹
- (b) had GEMA adopted the approach of considering total achievable SGBs by reference to each subcategory rather than by reference to the Other category as a whole, NPg and the other DNOs would all have been subject to larger SGB adjustments;¹⁰⁰
- (c) the fact that a third potential approach could have led to a smaller reduction to NPg's allowable revenues did not show, or indicate, that GEMA was wrong to adopt the approach it took;¹⁰¹
- (d) expenditure was a good proxy for a DNO's opportunity to achieve savings in a particular subcategory in GEMA's judgement, and this approach had commanded support from DNOs – including NPg – at the Draft Determinations stage;¹⁰² and
- (e) in order to apply the appropriate adjustment per subcategory, by DNO, GEMA needed to calculate the embedded SGBs in each subcategory.¹⁰³

4.31 GEMA did not agree that it made data handling errors in relation to spending on fault-level reinforcement:

- (a) GEMA did not agree that the modelled savings were not available to NPg.
- (b) The zero returns in the business plans of NPg and others were not supported by evidence of sufficient consideration of SGBs. GEMA therefore disagreed that zero returns demonstrated areas of spending where smart solutions could not sensibly be deployed, except in the case of SSEH which did not have any fault-level reinforcement expenditure.¹⁰⁴

⁹⁸ GEMA's Response, paragraph 166.

⁹⁹ GEMA's Response, paragraph 166(a).

¹⁰⁰ GEMA's Response, paragraph 166(f)(i).

¹⁰¹ GEMA's Response, paragraph 166(f)(ii).

¹⁰² GEMA's Response, paragraph 166(c).

¹⁰³ GEMA's Response, paragraph 166(d).

¹⁰⁴ GEMA's Response, paragraph 167(c)(ii).

(c) SSES was not an outlier: there was no evidence before GEMA that the savings projected by SSES, which had led the publicly funded innovation trials in this field, could not be applied across the industry.¹⁰⁵

4.32 GEMA said¹⁰⁶ that NPg did not quantify the £18.7 million of claimed smart savings in general LV/HV reinforcement until 29 August 2014, following the publication of Draft Determinations, despite being given ample opportunity in its business plans and in response to supplementary questions to provide further information on SGBs. GEMA said¹⁰⁷ that NPg suggested at that time that the saving of £18.7 million could be seen from the difference between a forecast of prospective expenditure in its usual regulatory return to GEMA for 2012 on the one hand, and the business plan submitted by NPg at fast-track, but there was no evidential support that the difference between these two figures related to SGBs. GEMA considered that a range of factors could have caused it, such as changes in forecasting due to sensitivity of cost in this area to changes in load growth forecasts or refinement upon stakeholder scrutiny.

4.33 On NPg's ground 1D, GEMA did not agree that its approach was procedurally unfair: rather, it reflected the importance of SGBs, something that was made clear to DNOs from the outset of the price control process and throughout.¹⁰⁸ GEMA disagreed that NPg was not given sufficient opportunity to comment on the development and refinement of GEMA's approach to SGBs:¹⁰⁹

- (a) GEMA engaged with NPg and other DNOs on the issue of embedded SGBs to be recognised in their business plans.
- (b) GEMA made detailed slide presentations to DNOs on two separate occasions on proposed changes to GEMA's methodology between Draft and Final Determinations for the slow-track DNOs, and engaged with DNOs on an iterative basis in respect of issues they raised.
- (c) GEMA's consultations and explanations of approach at the Strategy Decision, fast-track, and slow-track Draft Determinations stages gave DNOs the opportunity to comment at each stage.

¹⁰⁵ [GEMA's Response](#), paragraph 167(d)(i–ii).

¹⁰⁶ [GEMA's Response](#), paragraph 168(b).

¹⁰⁷ [GEMA's Response](#), paragraph 168(c).

¹⁰⁸ [GEMA's Response](#), paragraph 169.

¹⁰⁹ [GEMA's Response](#), paragraph 172.

Summary of NPg's Reply

- 4.34 NPg disagreed with GEMA's response that it ought reasonably to have understood following its fast-track assessment that in respect of cost efficiency GEMA remained unsatisfied and considered that NPg had failed to quantify properly its SGBs. NPg said that the paragraphs of the fast-track assessment GEMA had pointed to in its Response did not suggest that an increase in the overall level of SGBs was required, but rather that more supporting evidence was required.¹¹⁰ NPg considered that GEMA's view that any company that was not fast-tracked could expect significantly more scrutiny was not consistent with the RIIO principles of proportionate treatment.¹¹¹
- 4.35 NPg said that GEMA was wrong to consider that it failed to refine its business plan to address the quantification of SGBs, and that NPg had submitted 1,600 pages of additional justification, and had already submitted extensive evidence showing that it had carried out a systematic review of projects run by other DNOs.¹¹²
- 4.36 NPg said that GEMA had not dealt in its Response with NPg's evidence as to why GEMA was wrong to rely on the Draft Determinations evidence.¹¹³ NPg said that at Final Determinations a wholly new method for seeking to quantify smart grid savings was introduced.¹¹⁴ Once GEMA (rightly in NPg's view) ceased to rely on the quantum from the Draft Determinations evidence, it had no rational basis to conclude that there was an underestimation.¹¹⁵
- 4.37 NPg said that it was discriminatory for GEMA to have accepted WPD's view of SGBs whilst requiring NPg to do further work to justify its SGB narrative (not quantum), and then to apply SGB savings to NPg's plan that were significantly greater than those applied to WPD.¹¹⁶
- 4.38 In relation to double counting, NPg argued that:
- (a) the argument for removing the LV fault-finding element from the SGB benchmarking only dealt with this issue in one category, but precisely the same double counting risk remained in the other categories;¹¹⁷

¹¹⁰ NPg's Reply, paragraph 2.4.

¹¹¹ NPg's Reply, paragraph 2.6.

¹¹² NPg's Reply, paragraph 2.8.

¹¹³ NPg's Reply, paragraph 2.10.

¹¹⁴ NPg's Reply, paragraph 2.12.

¹¹⁵ NPg's Reply, paragraph 2.17.

¹¹⁶ NPg's Reply, paragraph 2.26.

¹¹⁷ NPg's Reply, paragraph 2.35.

(b) GEMA's approach to setting the benchmark in the Other category meant that, in practice, NPg was worse off than it would have been had LV fault finding not been removed, and GEMA had applied an upper quartile benchmark to 'Other' (the category within which LV fault finding would have been included);¹¹⁸ and

(c) using an upper quartile benchmark (which GEMA did in two of the reinforcement categories) was a normal approach to regulation and did not avoid cherry-picking or the problem of double counting.¹¹⁹

4.39 NPg said that GEMA had not challenged the validity of the figures provided by NPg showing that DNOs setting the benchmark in the SGB model trailed the efficient frontier in the cost models.¹²⁰ NPg said the assertion that NPg was one of the worst performing DNOs in the cost assessment exercise was incorrect and that GEMA had accepted this was not the case in correspondence following Final Determinations.¹²¹

4.40 In relation to distorted incentives, NPg said that its point was that GEMA's approach to SGBs in this price control risked distorting the DNOs' focus on the next price control, and thus affected decisions during RIIO-ED1.¹²²

4.41 NPg noted GEMA's acceptance that it had made a basic mathematical error, and argued that GEMA's estimate of the value of the error after interpolation was wrong as it did not take into account all of the components of the IQI.¹²³ NPg disagreed with GEMA's view that the error was not material stating that: '... on any fair-minded view, the sums at issue are large. Further, the question of whether an error is material is a function not only of the sums of money at stake, but also of the nature of the error.'¹²⁴

4.42 In relation to the alleged mathematical consistency error, NPg argued¹²⁵ that it was irrelevant that GEMA could have adopted a different approach to the assessment of SGBs in the Other category:

¹¹⁸ NPg's Reply, paragraphs 2.33 & 2.34.

¹¹⁹ NPg's Reply, paragraphs 2.36 & 2.37.

¹²⁰ NPg's Reply, paragraph 2.42.

¹²¹ NPg's Reply, paragraph 2.44

¹²² NPg's Reply, paragraph 2.46.

¹²³ NPg's Reply, paragraph 2.50. Ofgem stated that the value after interpolation was £3.8 million whilst NPg considered that there would also be an impact of £1 million with regard to the additional income component.

¹²⁴ NPg's Reply, paragraph 2.53

¹²⁵ NPg's Reply, paragraph 2.57.

- GEMA's mathematical calculations did not implement correctly its substantive decision to calculate the benchmark level of smart savings across the Other pot as an overall category.¹²⁶
- Whilst there was a range of options available, it was wrong for GEMA to select a calculation that failed properly to apply to NPg GEMA's assessment of SGBs in the Other category.¹²⁷

4.43 NPg said¹²⁸ that: 'The divergence between GEMA's substantive decision and its implementing maths led to the clear anomalies identified in the Frontier Report, involving arbitrary losses to NPg, which are not addressed at all by GEMA in the Response.'

4.44 NPg argued¹²⁹ that GEMA's statement that expenditure was a good proxy for a DNO's opportunity to achieve savings in a particular subcategory, was equally true of apportionment of the Other pot as an overall category, and did not justify its approach.

4.45 In relation to fault-level reinforcement, NPg argued that:

- (a) contrary to GEMA's view that it was reasonable to read across savings identified by one DNO to another NPg's own team had carried out trials on 11kV and 33kV superconducting technology¹³⁰ that were unsuccessful, and that for 66kV reinforcement GEMA's view was entirely speculative;¹³¹
- (b) as DNOs were strongly incentivised to identify SGB savings, a nil return by a DNO was good evidence that none were available,¹³² and
- (c) GEMA's view that the savings it had identified could be reasonably expected to be achievable was undermined by its use of a single unrepresentative data point to set the benchmark for fault-level reinforcement.¹³³

4.46 In relation to LV/HV reinforcement, NPg argued¹³⁴ that:

¹²⁶ NPg's Reply, paragraph 2.56.

¹²⁷ NPg's Reply, paragraph 2.55.

¹²⁸ NPg's Reply, paragraph 2.56.

¹²⁹ NPg's Reply, paragraph 2.56.

¹³⁰ Superconducting technology similar to that proposed by benchmark company SSE.

¹³¹ NPg refers to a view expressed by GEMA that something in this area could be invented. NPg's Reply, paragraph 2.65.

¹³² NPg's Reply, paragraph 2.66.

¹³³ NPg's Reply, paragraph 2.68.

¹³⁴ NPg's Reply, paragraphs 2.72 & 2.73.

- (a) there was – and presumably had been – no ‘expert evidence’ (underpinning the ‘expert review’ that GEMA referred to in its Final Determinations), NPg noted that none had been provided in GEMA’s response;¹³⁵
- (b) there was no expenditure reduction between fast-track and slow-track due to SGBs;¹³⁶ and
- (c) the only evidence before GEMA on this topic had been NPg’s evidence that the £18.7 million saving was attributable to SGBs, a point that could be tracked through to commentary in NPg’s original business plan and GEMA’s only response to this was that it could have been attributable to something else.¹³⁷

4.47 NPg noted that GEMA did not dispute the statement of the legal test in its Notice of Appeal regarding NPg being given the opportunity to comment intelligently on the proposal, but instead contended that the approach was explained to the DNOs between Draft and Final Determinations.¹³⁸ NPg argued that the slide presentations made by GEMA late in the process plainly did not provide NPg with adequate opportunity to make informed submissions.¹³⁹

Our assessment of appeal ground 1

4.48 NPg’s appeal ground 1 raises a number of complex and interrelated issues which address both the basis for GEMA’s SGB adjustment and the way in which that adjustment was implemented. Central to NPg’s arguments, and the decision we are required to reach on appeal ground 1, is the question of whether GEMA was justified in making its SGB adjustment; that is, having carried out its more detailed assessments of SGBs at the slow-track stage, whether GEMA was wrong to make an SGB adjustment to its view of efficient totex for NPg to reflect further potential savings beyond those identified in its business plan. This was the focus of NPg’s appeal ground 1A. In considering this question, we take into account the entirety of the pleadings received in relation to NPg’s ground 1. Finally, in this section, we consider NPg’s remaining challenges to GEMA’s decision on SGBs before reaching our overall conclusion on this ground.

¹³⁵ [NPg's Reply](#), paragraph 2.73.

¹³⁶ [NPg's Reply](#), paragraph 2.74.

¹³⁷ [NPg's Reply](#), paragraph 2.75.

¹³⁸ [NPg's Reply](#), paragraph 2.78.

¹³⁹ [NPg's Reply](#), paragraph 2.79.

Justification for NPg's smart grid benefit adjustment at Final Determinations

- 4.49 NPg argued that GEMA had no good basis for making an SGB adjustment, which NPg said was an entirely new and disproportionate approach that GEMA introduced only at Draft Determinations.¹⁴⁰ At its hearing, NPg told us that it was not arguing that departing from a pre-committed method was in and of itself an error, but rather that the case for such a change in approach depended on the evidential basis. NPg submitted that in the present case the evidence 'just doesn't stack up'. NPg further argued that the movement to the RIIO structure, which included mechanisms aimed at getting companies to present their best view of costs, meant that GEMA needed to be especially careful about the sort of basis that justified introducing a new exercise as was done for SGBs.
- 4.50 In response, GEMA pointed to the importance of innovation and the status of smart grids as a 'game changer'. It also took into account the public funding,¹⁴¹ through the LCNF and of the smart metering programme, to support smart grid solutions and noted heightened consumer interest in ensuring that SGBs were adequately reflected in the price control.
- 4.51 In its response to our provisional determination, GEMA argued that there was a threshold question of whether, in its judgement, DNOs' business plans underestimated the likely benefit that would flow to DNOs on account of smart solutions over the eight-year price control period. GEMA said it had reached this judgement before and independently of its process of quantifying and allocating the underestimate. GEMA argued that the question of its judgement that there was a likely underestimation should not be conflated with its method of quantifying that underestimation.
- 4.52 We note that there was at least a consensus that it was not necessarily an error for GEMA to depart from its pre-committed method. Further, we note that GEMA had signalled the importance of potential benefits from the introduction of smart grids in its strategy documents. In the light of this, it was to be expected that GEMA would have subjected DNOs' business plans to proper scrutiny. While we note the importance of what has been described as the 'competition for revelation' inherent in the RIIO approach, we do not accept that GEMA was required to expect that this process would have necessarily generated a sufficient level of potentially available smart savings. This is especially the case where there is significant uncertainty and savings

¹⁴⁰ NPg's Notice of Appeal, paragraph 6.42.

¹⁴¹ GEMA's Response, paragraph 144(b)(v).

rely on innovation and the deployment of new technology, as is the case with SGBs.

- 4.53 Nevertheless, we consider that following this scrutiny, applying a specific SGB adjustment was a material change in approach compared with what GEMA had set out in its Strategy Decision. In our view, the importance of smart grid technology is not, in itself, justification for decreasing NPg's revenue allowance and departing from the approach set out at the Strategy Decision stage which involved SGBs being assessed as part of GEMA's general cost benchmarking exercise. The strategy documentation did not envisage a subsequent SGB adjustment being applied. GEMA's fast-track assessment was consistent with this. It was only after the fast-tracking of WPD, and specifically at the Draft Determinations stage for the slow-track DNOs, that an SGB adjustment was proposed taking into account the information available at that time. Therefore, we consider that the basis for GEMA's change of approach and its judgement that potential SGBs had been underestimated requires careful consideration.

The relevant questions to be addressed in relation to justification for an SGB adjustment

- 4.54 We consider that the basis for an SGB adjustment of the kind introduced by GEMA must involve a judgement that the slow-track DNOs' business plans were likely to have underestimated materially SGBs and that the risk of any such underestimation had not been addressed adequately through GEMA's general cost benchmarking exercise. If, following the scrutiny that quite properly followed Draft Determinations, there was no good basis on which to conclude that the DNOs were likely to have underestimated SGBs materially, or if the general cost benchmarking exercise could be expected to have already addressed the risk of any underestimation to a sufficient degree, there can have been no justification for an adjustment.
- 4.55 In its response to our provisional determination, GEMA said that, properly framed, the questions to be addressed were:
- (a) Was the Authority entitled, in the exercise of its sectoral regulatory expertise, to conclude as a matter of the full range of evidence before it that DNOs' business plans were likely to have underestimated the full extent of avoided costs attributable to SGBs likely to flow to DNOs (as a result of public innovation funding) over the course of the eight-year price control?
 - (b) If so, was the Authority entitled to conclude that the adjustment it proposed to make, ie the quantification and allocation of that adjustment,

struck an appropriate balance of risk and reward between DNOs and customers and treated DNOs fairly between themselves in the process of allocation?

- 4.56 GEMA further said that our provisional determination erroneously treated GEMA's threshold judgement of the fact of a likely underestimation as a matter which had to be proved on the basis of quantified figures. GEMA argued that our provisional determination did not take into account the broader range of sources and evidence which informed and justified GEMA's judgement at the Final Determination stage that it was likely that the DNOs had as a whole underestimated the level of SGBs.
- 4.57 GEMA said that its judgement that the DNOs had likely underestimated potential SGBs in their plans was based on a comprehensive review of the DNOs' business plans (where they set out the particular smart grid solutions they intended using); presentations the DNOs gave on these plans; wider industry discussions, for example through the Smart Grids Forum, on the opportunities for smart grid deployment; GEMA's assessment of LCNF bids and its work with DECC on smart metering specification; and specific external sources of expert evidence subsequently used for quantification. GEMA said that:

The Authority reached this judgement before and independently of its process of quantifying and allocating the underestimate, which was done on the basis of calculations derived from the three identified sources of external evidence.

Both DNOs and the Authority were engaged in estimating the likely avoided costs which would flow to DNOs as a result of SGBs arising from current and future technology and solutions, over the course of the 8 year price control. The total figure was therefore inherently uncertain and it was entirely reasonable for the Authority first to reach a judgement as to the likelihood of an underestimation before then turning to the appropriate way to seek to quantify and allocate it.

- 4.58 We do not agree that GEMA's initial judgement that there was likely to be an SGB shortfall should be treated as though it was separate from and independent of the subsequent process of investigation of SGBs. It is not appropriate, in our view, to treat GEMA's judgement at Draft Determinations that there was a likely material underestimation of SGBs as effectively immune from the implications of information generated from its subsequent investigation of SGBs. We consider it necessary and appropriate to consider the extent to which the quantitative assessment which GEMA undertook had

implications for the judgement which GEMA necessarily had to make at the Final Determinations stage on whether an SGB adjustment was justified.

4.59 We note that GEMA pointed to its principal objective to protect the interests of consumers as providing support for its approach, as it meant that GEMA had to reach its best judgement on the overall cost allowance, taking account of the full range of evidence available to it, in a context of uncertainty. However, we do not consider that this materially affects the questions that needed to be addressed. As we set out in paragraph 4.53 above, we recognise that GEMA had prioritised the consideration of smart grid solutions and was seeking to ensure that the benefits of such solutions would be realised to a sufficient extent for the benefit of consumers in RII0-ED1. We consider, however, that robust, evidence-based decision-making, taking into account the potential limits of evidence on issues where there is significant uncertainty, is itself central to protecting the interests of consumers.

4.60 In order to examine whether GEMA was justified in concluding that an SGB adjustment should be applied, in the following sections:

- (a) We consider the substance and significance of the changes in the methodology between Draft and Final Determinations. We assess the implications of these changes, and the scale of them, for what GEMA describes as its threshold judgement.
- (b) We then examine the specific evidence which GEMA presented in its Final Determinations, and in this appeal, in support of the view that an SGB adjustment was justified:
 - (i) the external evidence in the DECC smart metering Impact Assessment and the Transform model; and
 - (ii) the assessment of the DNOs' business plans and specifically GEMA's approach to assessing SGBs in fault-level reinforcement and the Other category; and how it took into account the additional SGBs captured by the original benchmarking exercise.
- (c) Finally, we assess the implications of these considerations for GEMA's judgement at Final Determinations that an SGB adjustment was justified. We take into account the issues raised under NPg's appeal grounds 1B and 1C where we consider them relevant to this question of justification.

Change in methodology between Draft and Final Determinations

4.61 As was highlighted by both GEMA and NPg, GEMA's approach to SGBs in its Draft Determinations generated detailed submissions from the DNOs on both

the methodology and the assumptions underlying it. There was no dispute that GEMA responded to these submissions and changed its methodology at Final Determinations, although NPg contested GEMA's characterisation of the changes as a mere modification of GEMA's approach as opposed to a fundamental change in that approach. These changes included revising its definition of smart solutions that was applied when estimating embedded SGBs and changing how it approached the quantification of potential SGBs against which the embedded SGBs should be compared.

- 4.62 On the change of definition of smart solutions between Draft and Final Determinations, NPg said that GEMA 'significantly changed the test for smartness' and that had it been consulted in advance, NPg would have objected that it was 'general and subjective'.¹⁴² GEMA argued that it 'expanded' what it considered to be smart to accommodate further savings outside reinforcement. It argued that it had informed DNOs between Draft and Final Determinations and that, as the consequence of the expansion was to increase the level of embedded savings, NPg had suffered no detriment.¹⁴³
- 4.63 It is difficult to reconcile the change in what was considered to be 'smart' with the position that GEMA asked us to adopt in its response to our provisional determination; namely that the judgement that there was a shortfall in SGBs in DNOs' business plans should not be conflated with the methodology at Final Determinations to allocate an adjustment. Any judgement that DNOs had collectively underestimated available SGBs had to be revisited, in our view, to take into account a change in definition of what constituted an SGB.
- 4.64 We consider it is also relevant to that judgement that GEMA revised its estimate of embedded SGBs between Draft and Final Determinations as a result of this change in definition and further information and representations from DNOs about what was included in their business plans and should be considered SGBs. The method used by GEMA at Final Determinations increased GEMA's estimate of embedded SGBs in the DNO business plans from £405 million to £641 million, an increase of around 60%.¹⁴⁴
- 4.65 GEMA also changed how it estimated and categorised potential SGBs. The effect of the changes between GEMA's assessments at Draft and Final Determinations are summarised in Table 5. The extent of the change in GEMA's assessment between Draft and Final Determinations is particularly notable in relation to the Other category within potential SGBs. This increased

¹⁴² NPg's Notice of Appeal, paragraphs 6.115 & 6.116.

¹⁴³ GEMA's Response, paragraph 173.

¹⁴⁴ GEMA's estimate of embedded SGBs in the slow-track DNO business plans increased from £296 million to £476 million, which is also an increase of around 60%.

by more than three and a half times. This change resulted from GEMA's revised view of the level of embedded SGBs within the Other category and what GEMA considered this implied about the potential benefits available.

Table 5: Comparison between the GEMA assessment of SGBs at Draft and Final Determinations*

	<i>£ million</i>	
	<i>Draft Determinations</i>	<i>Final Determinations</i>
<i>Potential SGBs for all DNOs</i>		
Smart metering	183	0
Reinforcement	628	452
Other costs	132	511
Total	943	963
Embedded SGBs for all DNOs		
	405	641

Source: CMA analysis based on Draft Determinations – Business Plan Expenditure Assessment, paragraphs 11.16–11.24; Final Determinations – Business Plan Expenditure Assessment, Table 11.1; Witness Statement of James Goldsack, JEG1 – 16.

*The Draft Determinations figures for smart metering, reinforcement and Other costs have been scaled down in line with the approach used by GEMA to express potential SGBs in relation to its view of efficient costs from its general cost benchmarking process (as the original estimates were treated by GEMA as consistent with the cost levels submitted by the DNOs). This provides for comparability between the draft and final determinations figures shown. The table shows the figure for total potential SGBs that was included in GEMA's Final Determinations, but allocates this by source on the basis of the breakdown provided in JEG1 – 16.

4.66 GEMA challenged our presentation in this table (which we included in our provisional determination) of the change in potential SGBs between Draft and Final Determinations. GEMA said that the potential SGBs figures for the Final Determinations stage, shown in Table 5, excluded the implied potential SGBs in respect of WPD (which was fast-tracked) and thus were misstated. GEMA argued that the total potential SGBs figures as presented in the table were therefore not comparable between Draft and Final Determinations.

4.67 In Table 5, we reproduce the total potential SGBs from GEMA's own documents. We recognise that the Final Determinations figure does not assume any additional potential SGBs for WPD, over and above the identified level of embedded SGBs for WPD. However, this is consistent with the way in which GEMA considered it appropriate to treat WPD at the Final Determinations stage and with what it told us in the course of the appeals process. For example, GEMA told us at its hearing that it took this approach because 'we could not put a lot of weight on the data that WPD provided to us, because they were not part of the slow track process' and 'were not going to have to deliver any of those savings'. Furthermore, consistent with the way GEMA sought to take account of WPD, an appropriate adjustment would be to reduce the assumed level of potential SGBs at the Draft Determinations stage (to £801 million) and not to increase the level of potential SGBs at Final

Determinations as GEMA asked us to do.¹⁴⁵ In any event, Table 5 remains an accurate reproduction of the information published by GEMA on total potential and embedded SGBs and in our view it is illustrative of GEMA's changes in assumptions and categorisation of potential SGBs between Draft and Final Determinations.¹⁴⁶

- 4.68 Thus, our assessment identifies significant changes in the estimation and categorisation of embedded and potential SGBs between GEMA's Draft and Final Determinations. These changes should, in our view, have led GEMA to reconsider its original judgement that an insufficient level of SGBs had been captured by the general cost benchmarking exercise.
- 4.69 GEMA pointed to the fact that compared with the 17-fold increase in embedded SGBs in the Other category, its view of forecast potential SGBs increased 'only fourfold'. In our view, this observation illustrates that GEMA's updated view of embedded SGBs in the Other category at Final Determinations was around £100 million higher than its estimate of potential SGBs in the Other category at Draft Determinations. Rather than this leading to it reassessing its original judgement of an underestimation in the business plans, GEMA significantly increased its view of the level of potential SGBs it considered should be available thus maintaining a gap. The absence of such a reassessment did not give us confidence that the assessment at Final Determinations could be considered safe.
- 4.70 Overall, the change in methodology between Draft and Final Determinations was, in our view, a significant one which led to: a change to the definition of what constituted an SGB; an increase of around 60% in the level of SGBs estimated to have been embedded in DNOs' business plans; and a re-categorisation of SGBs which led to a nearly four-fold increase in one category.

The external evidence on potential SGBs

- 4.71 In its Draft Determinations, GEMA justified its decision to apply an SGB adjustment, in part, with reference to two sources of external evidence: the DECC smart metering Impact Assessment and the Transform model. In its Final Determinations, GEMA summarised respondents' views on its use of the external evidence but did not use the Transform model or the DECC smart

¹⁴⁵ In Table 11.2 of [Final determinations](#), Business Plan Expenditure Assessment, GEMA presented the total level of smart savings assumed in its Draft Determinations SGB proposals as £810 million. This figure differs from the £943 million figure shown for Draft Determinations in Table 5, as it includes embedded SGBs for WPD without any assumed uplift.

¹⁴⁶ GEMA's comments on the smart metering figures shown in Table 5 are considered in paragraphs 4.78 to 4.81 below.

metering Impact Assessment in its assessment of the appropriate level of SGB adjustments to be applied. NPg argued that GEMA had therefore dropped its reliance on external evidence at the Final Determinations stage.

- 4.72 GEMA told us that it continued to rely on the external data sources cited in its Draft Determinations to support its view that an SGB adjustment was justified. GEMA summarised its final position on the external evidence Impact Assessment in its Response:¹⁴⁷

The Authority continued to have confidence in the data sources to which it referred at the Draft Determination stage (which, as noted, largely originated with or had been relied upon by the DNOs). It remained the Authority's expert judgment that the SGBs which could reasonably be expected from DNOs significantly exceeded the forecast savings set out in each DNO's business plan.

- 4.73 At its hearing, GEMA told us that it did not abandon or disregard the evidence it had used at Draft Determinations, as NPg had contended. Rather, it just did not use it in the final quantification and allocation part of its analysis at Final Determinations.

- 4.74 We note the absence of an explanation in the Final Determinations about how GEMA's reliance on the external evidence for its threshold judgement may have been affected by the responses to the Draft Determinations. Nevertheless, we consider it necessary to assess the extent to which the external evidence provided support for GEMA's decision, at Final Determinations, that an SGB adjustment was justified. In doing so, we take account of the criticisms of this evidence by NPg and other DNOs during the consultation, and GEMA's response to these criticisms in the way that it applied an adjustment at Final Determinations.

- *Smart metering*

- 4.75 NPg said that half of the benefits in the DECC Impact Assessment were LV fault repair savings associated with faster fault finding, which all DNOs regarded as invalid because: (a) smart meters were unlikely to increase the speed of fault finding in most cases; and (b) in any event, the speed of finding a fault did not materially reduce the cost of repair. GEMA had pointed to the SGB quantification in the DECC Impact Assessment as being supported by a 2013 study by the Energy Networks Association (ENA) on the network

¹⁴⁷ [GEMA's Response](#), paragraph 154.

benefits of smart metering.¹⁴⁸ However, NPg said that the latest version of the ENA report showed a much lower estimate of the network benefits of smart metering and so did not support the DECC figure.

- 4.76 While GEMA's assessment of potential SGBs at the Draft Determinations stage had included £183 million of savings from smart metering, at the Final Determinations stage no specific separate provision was made for smart metering benefits in its view of potential SGBs. GEMA told us that its decision not to 'push harder' on SGBs from smart metering was an example of the conservative nature of its approach. GEMA's approach to smart metering benefits was explained in its Final Determinations as follows:

We include the DNO's embedded savings in the comparative benchmarking of smart savings. We do not add a further stretch for smart metering to mitigate risks of double counting. The DNOs' gross savings are reduced to reflect the cost of variable data over the first six years of RIIO-ED1 and the fixed and DCC licence fee costs for the last two years of RIIO-ED1, after the end of the smart meter roll out.

We expect in practice that DNOs can deliver all the benefits from smart metering that are identified in the DECC Impact Assessment.¹⁴⁹

- 4.77 When commenting on smart metering in its response to our provisional determination, GEMA said that:

- (a) The ENA's 2012 study had projected higher benefits than its 2013 study, and the 2012 study was produced in order to justify specific functionality in smart metering specification. GEMA said that the DNOs used the 2012 study to demonstrate that the additional costs of functionality would be outweighed by the benefits, including through SGBs, but that the 2013 study was produced by different consultants and proceeded on a highly conservative assumption that the benefits would only be achievable later than under the assumptions in the previous report and in DECC's Impact Assessment. GEMA said that it carefully considered the merits of these timing assumptions and concluded that DECC's assumptions were reasonable, and that some benefits would certainly be available to DNOs before the full roll-out of smart metering was complete.

¹⁴⁸ [Draft Determinations](#), Business Plan Expenditure Assessment, paragraph 11.17.

¹⁴⁹ [Final Determinations](#), Business Plan Expenditure Assessment, paragraphs 11.47 & 11.48.

- (b) Although GEMA did not include smart metering SGBs as a specific line item for the purposes of quantifying potential SGBs at the Final Determinations stage, GEMA did include smart metering SGBs which were included in DNOs' own plans. GEMA argued that, given this, the figure of £0 shown for potential SGBs at final determinations under the heading of smart metering in Table 5 was incorrect, and instead the correct figure was £76 million. GEMA said that this figure of £76 million could be found by calculating the total SGBs across both reinforcement and Other categories as determined by its SGB model with only the smart metering embedded SGBs included. GEMA said that this approach recognised that it considered there to be more certainty about the under-forecast of SGBs from smart metering, as demonstrated by (i) the industry's failure to deliver benefits close to those in the DECC Impact Assessment, and (ii) the fact that some DNOs (including NPg) had forecast no benefits in the non-reinforcement cost categories in which the Impact Assessment demonstrated, and other DNOs believed, savings were available.
- (c) Although GEMA considered it appropriate to adopt a cautious and conservative policy and not to use the DECC Impact Assessment to quantify and allocate such benefits, as stated in its Final Determinations, GEMA expected in practice that DNOs could deliver all the benefits from smart metering that were identified in the DECC Impact Assessment. GEMA said that it continued to rely on the DECC Impact Assessment as an indicator of the likelihood of an underestimation. The size of the savings set out in the DECC Impact Assessment, supported by the 2012 and 2013 ENA studies, led GEMA to exercise its expert regulatory judgement rightly to conclude that it was likely that DNOs had underestimated forecast SGB savings relating to smart metering.
- (d) GEMA's quantification of the underestimation would stand or fall on an analysis of the use of the evidence upon which GEMA relied (the DNOs' own business plans and evidence), but it was wrong in principle to conclude that GEMA's decision to confine its quantification to those sources meant that GEMA could not reasonably reach the judgement that there were significant savings which were likely to arise beyond what DNOs had projected on a broader basis.

4.78 In our view, GEMA's statements in its Final Determinations showed that it had modified the way in which it took the DECC estimates of smart metering benefits into account at Final Determinations in response to submissions it had received. As a result, it did not treat smart metering, by reference to the DECC smart metering Impact Assessment, as a specific additional source of savings in its assessment of potential SGBs. This is not to challenge the

assessment of smart metering benefits in the Impact Assessment; it simply reflects the fact that GEMA did not use it as an additional source of savings. We therefore consider it reasonable to show the potential SGBs figure for smart metering at the Final Determinations stage in Table 5 as £0.

4.79 Presenting this figure of £0 for smart metering does not imply an assumption that GEMA considered that there would be no SGBs associated with smart metering at the Final Determinations stage. That is not our view. As we highlighted above, GEMA clearly set out in its view at Final Determinations that, in practice, DNOs could deliver all the benefits from smart metering that were identified in the DECC Impact Assessment.¹⁵⁰ We consider, however, that GEMA's approach was consistent with the assumption that the potential for smart metering related SGBs was already being captured in other parts of its consideration of SGBs.¹⁵¹ We point to GEMA's explicit reference to mitigating risks of double counting in this context. The observation that the potential SGB figures for reinforcement and for Other implicitly include some level of smart metering benefits is consistent with this.

4.80 We note GEMA's view that there was more certainty about the under-forecast of SGBs from smart metering, but find this difficult to reconcile with the assessment that GEMA actually made at the Final Determinations stage. In its Final Determinations, GEMA noted DNOs' views that the 2013 ENA smart metering report was more appropriate than the 2012 report; that DNO delivery of smart metering benefits was dependent on supplier activity in relation to the roll-out of smart metering; and that net rather than gross smart metering benefits should be included, as some data and IT expenditure not provided for by the price control would be needed to achieve some smart metering benefits. In its Final Determinations assessment, GEMA did not specify potential SGBs related to smart metering that were separate and attributable to areas of expenditure other than those already included in its reinforcement and Other categories. We are therefore not persuaded that the £183 million estimate of SGBs related to smart meters, used by GEMA at Draft Determinations, can be treated reliably as an additional source of potential SGBs in GEMA's Final Determinations.

4.81 In its response to our provisional determination, GEMA said that 'All the data needed to do the calculation and demonstrate the [smart metering SGBs] under-forecast in the non-reinforcement categories by NPg in particular is

¹⁵⁰ [Final Determinations](#), Business Plan Expenditure Assessment, paragraphs 11.47 & 11.48.

¹⁵¹ We have not sought to identify the proportion of GEMA's estimate of potential SGBs which could be understood as related to smart metering. We note the correspondence from GEMA and NPg that followed GEMA's response to our provisional determination which addressed this point and, in our view, highlighted some of the difficulties of such an exercise. We do not consider this materially affects our overall assessment that the potential for smart metering-related SGBs was already being captured in other parts of its consideration of SGBs.

available in the “Total smart benefits assessment” Excel file’. However, GEMA did not show how, if at all, that data was used at the Final Determinations stage, and did not demonstrate during this appeal that there was an identifiable under-forecast of SGBs from smart metering. We are not persuaded that the brief comments GEMA made on this point in response to our provisional determination had a material impact on that assessment.

4.82 Taking all the evidence in the round, we are not satisfied that the estimate of smart metering savings in the DECC Impact Assessment can be relied on, to the extent that GEMA continued to do so, to support the view that the identified level of embedded SGBs at Final Determinations was likely to be insufficient.

- *The Transform model and reinforcement costs*

4.83 GEMA’s use of the Transform model at the Draft Determinations stage applied an assumed 25% level of SGBs across all reinforcement spending when calculating potential SGBs. NPg argued that the Transform model was developed in relation to low carbon technology and its conclusions could not simply be applied more broadly to all types of reinforcement. Consistent with this and in response to the Draft Determinations, DNO respondents proposed a separate assessment for areas of reinforcement not covered by the Transform model (including 132kV general reinforcement and fault-level reinforcement).¹⁵² DNOs also argued that an adjustment should not be made to reinforcement schemes that were already designed or in progress as it was not possible to include additional smart grid savings.¹⁵³

4.84 In its Final Determinations, GEMA accepted that the opportunities for savings in different areas of reinforcement may vary, due in part to the different solutions that could be deployed.¹⁵⁴ In the light of this, GEMA decided¹⁵⁵ to assess SGBs separately in relation to three separate reinforcement categories (LV-EHV general reinforcement, 132kV general reinforcement, and fault-level reinforcement), and decided not to use the Transform model for any of its reinforcement assessments: ‘We do not use the Transform model in our assessment of any of these categories as it is only directly applicable to a subset of LV-EHV general reinforcement.’¹⁵⁶

4.85 In its response to our provisional determination, GEMA said the following:

¹⁵² [Final Determinations](#), Business Plan Expenditure Assessment, paragraphs 11.26.

¹⁵³ *ibid*, Business Plan Expenditure Assessment, paragraph 11.27.

¹⁵⁴ *ibid*, paragraph 11.41.

¹⁵⁵ *ibid*, paragraph 11.41.

¹⁵⁶ *ibid*, paragraph 11.45.

- (a) It had not recognised that the scope of the Transform model's relevance was limited to only a subset of overall reinforcement costs. GEMA said that it continued to regard the Transform model as broadly indicative of the level of avoided costs which SGBs would deliver over the eight-year price control period in all reinforcement categories, and continued to rely on the Transform model as informing its judgement that the DNOs had understated likely SGBs.
- (b) It recognised that the Transform model was only directly relevant to LV-HV Low Carbon Technology related reinforcement, which formed part of the LV-EHV reinforcement cost category, but considered that the same proportion of savings should be achievable across all expenditure in this category. GEMA said that logically it was reasonable to use the Transform model to infer the level of savings for the whole LV-EHV reinforcement category, but because it was not directly relevant for the whole category GEMA relied on DNOs' own data for the quantification. GEMA said that this data showed 23% savings were possible, very similar to but slightly lower than the benchmark the Transform model indicated.

4.86 We are unpersuaded as to why the Transform model based figure of 25% should be understood as broadly indicative of the SGBs available in 132kV general reinforcement and in fault-level reinforcement. GEMA had recognised that there were considerations affecting the assessment of SGBs in those areas that merited separate and different treatment. Also, we note that in its Draft Determinations, when presenting its view that there were insufficient SGBs embedded in DNO business plans, GEMA had pointed to there being a considerable difference between its Transform model based assessment (which at that time was presented as 23 to 25% of reinforcement costs being avoided through the use of smart solutions) and the level of SGBs embedded in DNO business plans.¹⁵⁷ We do not agree that GEMA's observation that the level of SGBs identified from its upper quartile benchmarking of the LV-EHV reinforcement category was similar to the level it had identified on the basis of the Transform model provided material support for the view that an SGB adjustment was justified, in a context where GEMA had already undertaken its general cost benchmarking exercise

4.87 Overall, we consider that the DNOs' responses to GEMA's use of the external evidence at Draft Determinations stage had highlighted issues which led GEMA to change the way it took this evidence into account. As with the changes to the methodology, we consider that the prior judgement made,

¹⁵⁷ [Draft Determinations](#), paragraph 11.19.

about a shortfall between the SGBs in DNOs' business plans and what was available, should have been revisited in the light of this change.

GEMA's assessment of DNOs' business plans

- 4.88 Having considered the external evidence which GEMA cited at Draft Determinations, and which we understand it continued to rely on for its threshold judgement at Final Determinations, we consider GEMA's assessment of the DNO business plans in its benchmarking exercise at Final Determinations. We consider specifically what this exercise showed about the level of SGBs in DNOs' business plans and the extent to which it supported its final judgement about the justification for an adjustment to GEMA's view of NPg's totex.
- 4.89 We consider that it was clear that, at Draft Determinations, GEMA regarded all of the DNOs as having an insufficient level of SGBs embedded in their business plans,¹⁵⁸ and that it was this view that underpinned GEMA's justification for an SGB adjustment. In addition, we consider that it was reasonable for GEMA to have compared the ways in which DNOs were applying smart grid solutions in different areas and drawn inferences concerning the adequacy of embedded SGB levels on this basis.
- 4.90 However, we note that this approach makes the assessment, of whether there is a material shortfall in the level of SGBs embedded in DNO business plans, heavily dependent on GEMA's judgements when comparing DNOs. The assessment is dependent both on GEMA's judgements on what should and should not be treated as an SGB when embedded SGB levels are being calculated, and on GEMA's judgement with respect to how observations of different levels of SGBs in different cost categories across DNOs should be interpreted, and used to generate a view of potential SGBs.
- 4.91 In our view, the context within which this assessment was made raised a number of significant challenges, given – among other things – inevitable uncertainties over what might be achievable in an evolving context, the novelty of the exercise (including the absence of an established and stable basis for identifying and reporting what should be treated as 'smart'), and the fact that a holistic cost benchmarking exercise had already been undertaken. We consider that this meant particular care was merited in seeking to draw a conclusion that the comparison of the data among DNOs supported a finding that there was a likely shortfall across all DNOs that justified an adjustment.

¹⁵⁸ For example, [Final Determinations](#), paragraph 4.70, and in [Final Determinations](#) – Business Plan Expenditure Assessment, Table 11.4.

4.92 We consider in this context the evidence and arguments we received in relation to GEMA's approach to SGBs in fault-level reinforcement and SGBs outside reinforcement, in the Other category. We then consider what account was taken of the fact that GEMA had already undertaken a general cost benchmarking exercise.

- *Fault-level reinforcement*

4.93 In its Final Determinations, GEMA set the benchmark for fault-level reinforcement equal to 75% of SSES's level of embedded SGBs in this category which was the highest percentage level across all the DNOs. This raises the question of the extent to which the difference between 75% of SSES's SGBs in this category, and the embedded level of SGBs for other DNOs, should be understood as supporting the view that an SGB adjustment was justified.

4.94 We consider it clear that SSES's percentage level of SGBs in this category was an outlier, and that the relatively low percentage level of overall spend that SSES accounted for in this category was a highly relevant factor, as it gives reason to question the comparability of circumstances. GEMA's approach resulted in a level of SGBs being treated as achievable by all slow-track DNOs for fault-level reinforcement that was much higher than the upper quartile level.

4.95 In its Notice of Appeal and at its hearing, NPg focused its criticisms of GEMA's approach to fault-level reinforcement on what it described as the commercial and engineering realities of applying the solutions identified. That is, NPg did not consider it reasonable to assume that the identified benchmark level of SGBs was replicable by NPg.

4.96 We note that cost benchmarking routinely involves applying implicit or explicit assumptions that a level of savings generated (or forecast) by one company can provide the basis for determining a target level of savings that should be applied to another, and that while such assessments seek to take account of a range of factors that explain why underlying costs might be expected to differ, they will typically not involve more detailed scrutiny of how exactly relevant cost savings might be achievable. That is, for the purposes of the modelling, cost savings are often assumed to be replicable.

4.97 We consider though that the extent to which replicability is a reasonable assumption to adopt will depend both on the nature of the benchmarking exercise being undertaken, and on how target levels are set. Replicability issues can be expected to be more significant the narrower the scope of the benchmarking exercise and the more stringent the approach adopted to

setting the target. We consider these to be highly relevant considerations in relation to GEMA's approach to benchmarking SGBs which was undertaken after and using the same data as the original holistic cost assessment process.

4.98 In its response to our provisional determination, GEMA said the following:

- (a) It was seeking to reach a judgement of the appropriate level of SGB savings to be forecasted across the whole eight-year period of the price control period, encompassing technologies and solutions which had already been developed and those in development or which were yet to be developed. GEMA said that in its analysis, it was therefore looking to identify a proxy for the level of SGBs which could be assumed would arise.
- (b) Because it was identifying a proxy for the avoided costs which could be assumed to arise on the basis of current and future technology and solutions, it was wrong in principle to conclude that SSES's figures could only be used once appropriate checks in relation to replicability had been satisfied.
- (c) Although SSES was quantitatively an outlier, there was no evidence before GEMA that SSES's activity mix was different to other DNOs, and most of its projected savings were not linked to specific schemes.
- (d) The upper quartile approach was only inappropriate in this category, and the level of SSES's estimated SGBs only exceeded the upper quartile, because of the number of DNOs that made zero returns in this category. Absent a narrative explanation of the consideration of SGBs in this category and a reasoned explanation why no SGBs at all were forecast, GEMA could not simply accept that such zero returns properly reflected an inability to achieve SGBs. GEMA had examined NPg's scheme papers and saw no evidence that NPg considered smart solutions in this category.
- (e) With respect to the part of SSES's projected savings which were based on a technology that NPg had itself trialled and considered to have failed, all parties agreed that SSES planned to use a different technology which had drawn on learning from NPg's trial, and there was no reason why SSES ought not reasonably to be assumed able to deliver the savings it had projected.
- (f) The development and applicability of new technologies was an area where the information asymmetry between GEMA and the DNOs was heightened. In the context of a tight time frame and resourcing differences

between GEMA as a regulator and the commercial operators of the networks, it would be highly unsatisfactory and inconsistent with the duty and ability of the regulator to protect the consumer interest in a price control context if the regulator were to be expected to engage in a complex, challenging and resource- and time-intensive process of the assessment of technical and commercial replicability of presently known solutions. GEMA said that it considered the extent of its consideration of replicability was sufficient in the context.

- 4.99 While we consider it reasonable to treat the observation of SSES's much higher level of SGBs in this category as raising a question as to the adequacy of the level of SGBs identified in this category by all of the other DNOs, we would expect a conclusion that such a difference justified an adjustment to be reached only after appropriate checks in relation to replicability had been satisfied.
- 4.100 We note that NPg pointed to material concerns over whether SSES could itself deliver the level of SGBs it had identified, as that – in SSES's plans at least – relied on an application of a technology that NPg itself had trialled and had found to fail. While there are clearly limitations on the extent to which regulators can be expected to (and which it would be desirable for them to) examine such matters, a decision to set a revised target based on a single outlying observation requires justification.
- 4.101 We do not consider that GEMA's observation that it was seeking to identify a proxy should have any particular bearing on this assessment. Nor do we consider that our decision in this specific context should be understood as having wide-ranging consequences for the resources that GEMA should be expected to apply to examining matters of replicability. The context of GEMA's approach to fault-level reinforcement, and SGBs in general, was that a novel benchmarking exercise was being undertaken in relation to a category of avoided costs that had been quantified, and redefined, after the submission of business plans. We consider that the reliability of any given proxy in the circumstances GEMA faced required careful consideration and cogent justification. We do not consider that the appropriateness of the single data point that GEMA used in this category – which we consider was clearly an outlier – was adequately tested. As such, we do not consider that GEMA's assessment of fault-level reinforcement provided material support for the judgement that there was a likely overall shortfall of SGBs that justified an adjustment.

- *The 'Other' category*

- 4.102 GEMA's assessment of SGBs outside reinforcement changed significantly at Final Determinations. Its assessment of the DNOs' business plans and re-categorisation of SGBs led GEMA to increase the level of embedded SGBs in that category (described as Other) by 17 times compared with what had been identified at the Draft Determinations stage. While the ENWL evidence at Draft Determinations may have provided a reasonable starting point for challenge, because it suggested that no other DNOs had considered savings outside reinforcement, the subsequent process showed that all DNOs had a significant level of SGBs outside reinforcement.
- 4.103 The shortfall between embedded and potential SGBs that GEMA identified at the Final Determinations stage relied to a significant degree on it increasing its estimate of potential SGBs in its Other category by three and a half times. We are not satisfied that GEMA had a reliable basis for concluding that any level of embedded SGBs in the Other category, that fell below that identified by the frontier company, should be treated as a shortfall. In line with our comments on fault-level reinforcement, the context of GEMA's approach to assessing Other was that a novel benchmarking exercise was being undertaken in relation to a category of avoided costs that had been quantified and redefined after the submission of business plans. The changes to the definition of what constituted a smart saving and the absence of established reporting rules suggested particular care should have been taken when drawing a conclusion that a comparison of the data showed an overall shortfall.
- 4.104 In its response to our provisional determination, GEMA argued that our assessment of the Other category went beyond the ambit of NPg's appeal. While this assessment of the Other category goes beyond specific issues that NPg challenged under grounds 1B and 1C, we consider that GEMA's approach to Other clearly falls within ground 1A, and note that it was explicitly criticised in the evidence presented by NPg.¹⁵⁹ We also note that NPg's embedded level of SGBs in the Other category exceeded the upper quartile level. GEMA also pointed to its approach to Other as being more conservative than had it considered each subcategory within Other separately. We do not consider that the fact that potential SGBs could have been assessed on a more stringent basis justified the approach that GEMA actually adopted in this area.

¹⁵⁹ NPg's Notice of Appeal, Frontier Report.

- *Estimation of SGBs resulting from the original benchmarking exercise*

4.105 As set out in paragraph 4.55 above, we consider that the basis for an SGB adjustment of the kind introduced by GEMA must involve a judgement that the slow-track DNOs' business plans were likely to have underestimated materially potential SGBs, and that the risk of any such underestimation had not been addressed adequately through GEMA's general cost benchmarking exercise. NPg argued that GEMA's assessment of SGBs at Final Determinations had failed to take into account the additional SGBs it had already removed from DNOs' costs, as a result of the general cost benchmarking exercise at the slow-track stage. While this argument was presented in ground 1B, we considered that it also had direct relevance to the question of justification raised by ground 1A.

4.106 NPg estimated that the general cost benchmarking process extracted between £43 million and £82 million of SGBs across the DNOs over and above the amounts identified as embedded in DNOs' business plans. By returning to the same data and using it to calculate further reductions in DNOs' totex, GEMA should, NPg argued, have recognised the risk of double counting SGBs already extracted.

4.107 It was common ground that the cost benchmarking exercise would have been likely to have captured a level of SGBs that was additional to SGBs embedded in DNO business plans. It was because of this that GEMA accepted there was at least some risk of double counting in its assessment. GEMA commented that the assumptions on which NPg's estimate of £43–£82 million was based seemed like reasonable ones for generating a range. We agree, while recognising the difficulties inherent in this exercise and recognised by NPg.¹⁶⁰ We therefore consider it an appropriate indicative range of the amount by which the original upper quartile benchmarking process decreased DNOs' allowed revenue to take into account SGBs embedded in DNOs' business plans.

4.108 In its response to our provisional determination, GEMA argued that the lack of a calculated estimation of double counting was irrelevant and immaterial, given that GEMA demonstrably resolved the entirety of any double count, having removed £274 million from the SGB adjustment in circumstances where NPg estimated the risk of double counting only to equate to £43–£82 million. GEMA also said that it found no risk of double counting in the

¹⁶⁰ The main difficulty with estimating such a range relates to the distinction that is drawn in GEMA's assessment between 'smart' and other – 'conventional' – savings. As SGBs were not, and were not required to be, separately and consistently identified and reported as part of the general cost benchmarking exercise, the process of seeking to establish what impact that exercise had on SGBs inevitably involves a number of assumptions.

Other and fault-level reinforcement categories as there was no overlap between DNOs setting the benchmarks in the cost assessment and SGB assessment exercises.

4.109 We do not consider that GEMA's observation that its identified level of potential SGBs could have been higher if it had chosen to adopt a more stringent approach has a material bearing on this assessment. GEMA's response focused on the level of the adjustment it subsequently made rather than the relevance of the original benchmarking exercise to the question of justification. In our view, the question of the extent to which the general cost benchmarking had already captured a level of SGBs that was higher than that embedded in DNO business plans was a material consideration for GEMA's threshold judgement. Taking into account NPg's estimates of the effect the benchmarking exercise had on the savings that would be required as a result of the cost assessment process, the original benchmarking exercise was already delivering a level of SGBs that was materially higher than GEMA's £641 million estimate of embedded SGBs: between £684 million and £723 million. We consider this to be highly relevant to the question of whether an SGB adjustment was justified at Final Determinations.

Implication of our assessment for GEMA's threshold judgement

4.110 We have assessed the evidence from the external sources and review of DNOs' business plans. We now consider the implications of this assessment for GEMA's judgement as to whether there was a shortfall in SGBs that justified an adjustment.

4.111 As was shown in Table 5 above, at the Draft Determinations stage GEMA had identified £405 million of embedded SGBs and compared this against its estimate of potential SGBs at that time of £943 million. This comparison implies that DNOs had included less than half of the level of SGBs in their business plans than might have been expected. On the face of it, this comparison provided support for the view that some form of remedial action may be required to address an SGB shortfall.

4.112 However, we consider that it was also clear that by the time of GEMA's Final Determinations, this quantitative comparison could not be treated as providing a reasonable basis for considering the adequacy of the SGBs embedded in DNO business plans. GEMA's assessment of the level of embedded SGBs had increased considerably to £641 million. As we set out in paragraph 4.106, we consider it important to recognise also that GEMA's general cost benchmarking exercise would already have provided for SGB delivery over and above this. NPg's estimate of double counting suggests that the effective

level of SGBs embedded through the cost assessment process was between £684 million and £723 million.

- 4.113 At the same time, we consider that GEMA's estimate of £943 million could not, at the Final Determinations stage, be considered a reliable estimate of potential SGBs. At Final Determinations, GEMA did not treat the DECC smart metering Impact Assessment as providing an additional source in its calculation of potential SGBs, and we did not consider that the smart metering savings in the Impact Assessment could be relied on to support the view that the level of embedded SGBs was insufficient. This indicates that the level of potential SGBs at the Draft Determinations stage was overstated by £183 million, and adjusting for this brings the estimate down from £943 million to £760 million.
- 4.114 Also, GEMA had recognised that the Transform model was only directly applicable to a subset of LV-EHV general reinforcement, and its examination of potential SGBs in reinforcement at Final Determinations suggested a further reduction of £176 million.¹⁶¹ This implies a level of potential SGBs that is actually below the level of identified embedded SGBs at the Final Determinations stage, and significantly below the effective level of SGBs that was captured by the original cost assessment process.
- 4.115 The shortfall that GEMA identified in its Final Determinations derived to a significant degree from its identification of potential SGBs in the fault-level reinforcement and Other categories. In particular, GEMA increased its estimate of potential SGBs in the Other category by three and a half times and based its assessment of potential SGBs in fault-level reinforcement on a clear outlier. GEMA assumed that any level of embedded SGBs that fell below the level embedded by the frontier company in the Other category, and below 75% of the frontier level for fault-level reinforcement, should be treated as a shortfall. As NPg's evidence highlighted, had GEMA applied an upper quartile approach in all areas of its SGB benchmarking exercise at Final Determinations rather than going beyond this in relation to fault-level reinforcement and the Other category, there would have been no SGB shortfall identified in relation to NPg.¹⁶² As set out above, we are not satisfied that GEMA's assumptions were an appropriate basis on which to increase the estimate of potential benefits.

¹⁶¹ This is an estimate of the difference between the figures for potential SGBs in reinforcement at the Draft and Final Determinations stages (shown in Table 5). As such, this ignores any of the criticisms that have been made of GEMA's assessment of reinforcement SGBs at Final Determinations.

¹⁶² NPg's Notice of Appeal, Frontier Report.

4.116 In the light of our assessment, the evidence relied on by GEMA at Final Determinations is not indicative of an SGB shortfall and is clearly very different from the position presented at Draft Determinations where embedded SGBs were identified as less than half the level of potential SGBs.

4.117 At its hearing, GEMA told us that it did not have a number in mind for potential SGBs:

We did not have a number in mind. I think it is right to say that the fact that going away, doing a completely fresh exercise, starting bottom-up with the DNOs' business plans, the fact that that came out with a broadly similar number gave us some confidence that the approach we had taken in the beginning was the right one.

4.118 We do not share this confidence. The approach at Final Determinations was based on GEMA's own judgements about the extent of additional savings it should assume to apply in the various categories based on SGBs it had identified in DNOs' business plans. The extent of these additional savings depended on GEMA's decisions about how the benchmarks relating to these SGBs should be applied. Given this, it is difficult to see how the fact that this approach produced a number similar to that generated by the external evidence, which GEMA was no longer relying on to quantify potential savings (in our view, with good reason), can provide a credible basis for having confidence in the final assessment.

4.119 We are not persuaded that GEMA's assessment of external evidence, or its quantitative assessment of DNO business plans presented at Final Determinations provided material support for its view that there was a likely SGB shortfall that justified an adjustment.

Other criticisms under NPg's ground 1

4.120 NPg raised a number of further challenges to GEMA's SGB decision, and these are considered below.

Approach relative to the fast-track stage

4.121 NPg contended that given GEMA's assessment of NPg's business plan at the fast-track stage, its reassessment of SGBs at the slow-track stage was unjustified and disproportionate. NPg pointed to the fact that, at fast-track, it received one amber rating with all remaining ratings green and therefore it argued the detailed slow-track assessment was unjustified and disproportionate. It further argued that by not subjecting WPD to the separate assessment of smart benefits, WPD avoided an adjustment and 'it was

discriminatory and wrong to subject the Appellants to such an unjustified “second swipe” when WPD was not’.¹⁶³

4.122 We consider that GEMA’s approach focusing its attention at the slow-track stage on those areas where DNOs had been ranked amber or red at fast-track was an acceptable one. NPg had been rated amber for cost efficiency and it was under this heading that it considered SGBs. As GEMA argued, NPg would have benefited from a less detailed re-examination of its business plan in those areas where it had been rated green at fast-track. We accept GEMA’s argument on NPg’s treatment relative to WPD, that ‘DNOs could never reasonably have assumed that the outcome of the slow track assessment process would be no different than to apply to them the same outcome as applied to fast-tracked DNOs’.¹⁶⁴

4.123 We are not persuaded by NPg’s arguments that GEMA’s overall approach at slow-track relative to the fast-track assessments was unjustified or in some way disproportionate and discriminatory relative to WPD. We saw no evidence from the documents published by GEMA during RIIO-ED1 to suggest that DNOs could reasonably have expected not to have their business plans subject to the degree of scrutiny which GEMA applied at the slow-track stage. In so far as WPD was treated differently, this was, in our view, an inherent feature of the fast-track process and did not involve any disproportionate or discriminatory treatment. As GEMA pointed out, all DNOs had the opportunity to be fast-tracked.

Calculation errors

4.124 We agree with NPg that GEMA’s assessment of SGBs at Final Determinations included two calculation errors:

- It is common ground that GEMA made a calculation error when calculating the percentage of smart savings embedded in the business plans of NPg. We agree with GEMA that NPg’s SGB adjustment was £5.1 million higher than it would have been, other things equal, as a result of this error.
- We also consider that there was an inconsistency between GEMA’s approach to setting the benchmark for, and calculating embedded SGBs in, the Other category, and that this should be regarded as an error as it gives rise to arbitrary results, as NPg argued. NPg’s SGB adjustment was around £1 million higher than it would have been, other things equal, as a

¹⁶³ [NPg’s Notice of Appeal](#), paragraph 6.55.

¹⁶⁴ [GEMA’s Response](#), paragraph 162.

result of this error. We note that GEMA did not challenge this conclusion in its response to our provisional determination.

Prevailing levels of efficiency

4.125 NPg argued that GEMA's methodology had failed to take into account prevailing levels of efficiency, and pointed to analysis comparing the benchmarks in the DNO model with the cost assessment models. We do not find this analysis determinative, and given our conclusion in relation to the absence of an adequate justification for an adjustment, do not consider it necessary to draw further conclusions in relation to this matter.

Savings in general LV/HV reinforcement

4.126 NPg challenged GEMA's refusal to accept £18.7 million of SGBs, when NPg said it had provided firm evidence that the savings were 'smart'. GEMA challenged the extent to which it had been provided with 'firm' evidence, and pointed to NPg's evidence as being insufficient. We consider that the nature of this dispute highlighted the difficulties of carrying out, late in the process, a new benchmarking exercise in relation to a category of avoided costs that had not been clearly and consistently identified. Given our conclusion in relation to the absence of an adequate justification for an adjustment, we do not consider it necessary to reach conclusions in relation to this matter.

Distorted incentives

4.127 NPg also argued that GEMA's approach wrongly distorted DNOs' incentives by rewarding savings made through smart solutions over conventional solutions. We do not find these arguments persuasive. As GEMA pointed out in its Response, the exercise with which it was concerned was the determination of allowable revenues during the price control period.¹⁶⁵ We agree with GEMA that it is open to DNOs to deploy whatever solutions (smart or conventional) they consider are best placed to help them reduce their costs and there is an efficiency incentive mechanism in place to encourage them to do so. During the RIIO-ED1 price control, there is no requirement on DNOs to deliver efficiencies through SGBs. Thus, we do not consider that GEMA's SGB adjustment, in itself, wrongly distorts DNO incentives.

4.128 However, we do consider that GEMA's approach to SGBs going forward has the potential to distort incentives between differently classified sources of efficiency saving (smart vs conventional), and that this could have undesirable

¹⁶⁵ [GEMA's Response](#), paragraph 163c(i).

effects. GEMA and other economic regulators have – over many years – rightly recognised the potential for what can be relatively arbitrary classifications of costs to give rise to undesirable incentive effects (including the direction of material resources towards seeking to influence what should be included in different categories, where such decisions have significant financial consequences). In line with this, GEMA has developed approaches that have diminished the significance of such categories, and the development of a totex approach can be understood within this context.

- 4.129 This suggests to us that careful consideration should be given to the risk that the use in the cost assessment process of specific cost categories, such as, smart/conventional, may lead to undesirable incentive effects representing a backward step in terms of incentive regulation. This is because of the potential for the use of such categories to distort incentives in undesirable ways.

Unfair process

- 4.130 NPg challenged GEMA's process on SGBs. We note that GEMA's new approach at Final Determinations was designed and applied between publication of the Draft Determinations in July 2014 (the consultation period for which closed on 26 September 2014) and Final Determinations in November 2014. Given these time frames, it was clearly likely to be challenging to engage in meaningful consultation. While we recognise that GEMA sought to do so, we agree with some of NPg's criticisms of the process. In particular, we consider that the slide presentations made to the DNOs in October, and submitted as evidence in this appeal, were not sufficient to enable NPg to comment on the methodology that it subsequently challenged through this appeal.

Conclusion on appeal ground 1

- 4.131 In considering NPg's appeal ground 1 as a whole, we take account of the importance of smart grid solutions and the role they are likely to play in the RIIO-ED1 price control period. We recognise that GEMA had been consistent throughout the RIIO process that DNOs needed to demonstrate how they had considered using smart grid solutions and it had highlighted concerns from stakeholders that DNOs may be slow to deploy them. Public money has been used to fund pilot schemes and GEMA noted heightened consumer interest in ensuring that SGBs were adequately reflected in the price control. It is, in our view, consistent therefore with GEMA's objectives for it to prioritise smart grid solutions in the price control and provide constructive challenge to the DNOs to incorporate them sufficiently in their business plans.

- 4.132 We also note, however, that the relevant aspect of the decision under appeal is the reduction to NPg's totex allowance. GEMA applied this reduction as a result of its assessment of SGBs but we do not consider that the reduction would be likely to lessen materially NPg's incentives to identify and adopt SGBs over the eight years of the RIIO-ED1 price control. As GEMA pointed out, it is open to DNOs to deploy whatever solutions they consider are best suited to reducing their costs. Further, the importance of smart grid solutions as a policy goal cannot, in our view, negate the need for decisions in relation to SGBs in the price control to be justified and supported adequately by reasoning and evidence.
- 4.133 Applying an SGB adjustment was a material change in approach compared with what GEMA had set out in its Strategy Decision. That is, notwithstanding the importance of smart grid solutions and the role they are likely to play in RIIO-ED1, the approach set out at the Strategy Decision stage envisaged SGBs being assessed as part of GEMA's general cost benchmarking exercise, and did not envisage a subsequent SGB adjustment being applied. GEMA's fast-track assessment was consistent with this, and it was only after the fast-tracking of WPD, at the Draft Determinations stage for the slow-track DNOs, that an SGB adjustment was proposed.
- 4.134 The justification for applying an SGB adjustment therefore required careful consideration. We consider that the basis for an SGB adjustment of the kind introduced by GEMA must have involved a judgement that the slow-track DNOs' business plans were likely to have underestimated materially potential SGBs and that the risk of any such underestimation had not been addressed adequately through GEMA's general cost benchmarking exercise.
- 4.135 We assess GEMA's justification provided at Draft Determinations and at Final Determinations. GEMA's justification for the adjustment at Draft Determinations was based on an assessment of SGBs in DNOs' business plans, taking into account external evidence from the Transform model and the latest DECC Impact Assessment for the roll-out of smart metering. At that stage, GEMA estimated potential SGBs of £943 million and compared this with £405 million of SGBs it had identified as embedded in DNO business plans.
- 4.136 However, there were significant changes between Draft and Final Determinations that have a major bearing on the assessment of SGBs. As we set out in paragraph 4.64, GEMA changed its definition of what constituted an SGB which contributed to an increase in the estimate of embedded SGBs of around 60%: from £405 million to £641 million. This included a 17-fold increase in embedded SGBs in the Other category, such that GEMA's updated view of embedded SGBs in that category exceeded what its view of

potential SGBs had been for that category, at Draft Determinations, by a significant margin.

- 4.137 In the light of these significant changes, we conclude that GEMA should have revisited its prior judgement that DNOs had underestimated SGBs in their business plans. We do not accept that this judgement should be viewed independently of the specific analysis GEMA chose to carry out and on which it relied in the Final Determinations. GEMA's assessment of how SGBs should be defined and the extent to which they had been identified and incorporated by DNOs in their business plans must, in our view, be relevant to what GEMA described as its threshold judgement.
- 4.138 When we revisit this threshold judgement, we note that the substance and significance of some of the information and evidence relied upon at Draft Determinations had changed such that the perceived gap between embedded and potential SGBs was no longer evident. Our assessment of the evidence in the external sources is that it could not be relied on at Final Determinations in the same way it had been at Draft Determinations. Further, we conclude that GEMA's assessment of DNO business plans did not provide material support for the view that there was an SGB shortfall that justified an adjustment.
- 4.139 Therefore, in our view, these two key sources of support for GEMA's judgement that there was an underestimation are significantly undermined. The third, as characterised by GEMA in its response to our provisional determination, was its sectoral regulatory expertise.
- 4.140 We accept that, in general, GEMA was able to draw on a wide range of evidence and its regulatory judgement in reaching the decisions that informed its RIIO-ED1 Final Determinations. However, in the context of this ground of NPg's appeal, we have considered carefully what was presented to us as that wider evidence base including the approach which GEMA adopted at Final Determinations to estimate embedded and potential SGBs. In our view, for the reasons set out above, neither the evidence nor the reasons put forward by GEMA, at the time or subsequently, support GEMA's decision to make a specific SGB adjustment. In the absence of evidential support for the judgement, GEMA's discretion cannot, in our view, be treated as sufficient to justify the adjustment to NPg's totex that it made.
- 4.141 In reaching our determination on this ground, we considered carefully our duty to protect the interests of consumers. We do not consider that this duty requires us to uphold, or permitted GEMA to introduce, a significant change in approach that was inadequately justified. Our assessment of GEMA's approach to SGBs at Final Determinations is that it was unsafe and could not be relied on to justify the adjustment that was made.

- 4.142 While we recognise GEMA's intentions in its approach to SGBs, and the importance of smart grid solutions, there has to be, in our view, a limit to the discretion of regulators to make adjustments to the costs assumed in setting the price control where the consultation process has failed to demonstrate evidence in support of those adjustments. The exercise of regulatory discretion remains bounded and subject to legal principles as described in Section 3 above.
- 4.143 Taking all of the evidence into consideration, we are not satisfied that GEMA had established that there was risk of a material underestimation of SGBs that had not been adequately addressed through GEMA's general cost benchmarking exercise. We therefore determine that the SGB adjustment that GEMA applied to NPg was not justified and that GEMA's decision was wrong because of an error of law and/or an error of fact. Accordingly, we uphold NPg's appeal on ground 1.
- 4.144 In the light of this determination, we do not consider it necessary to conclude on NPg's other challenges to GEMA's decision on SGBs further to our assessment as set out in paragraphs 4.120 to 4.130. We do, however, draw particular attention to our comments in paragraphs 4.128 to 4.129 that careful consideration should be given to the risk that the use in the cost assessment process of specific cost categories, such as, smart/conventional, may lead to undesirable incentive effects representing a backward step in terms of incentive regulation.
- 4.145 Finally, we have carefully considered the concerns expressed by GEMA in its response to our provisional determination, that our decision on this ground would have implications for the future by placing too high a burden of evidence on the regulator, particularly in a context of uncertainty created by technological innovation. Our position is that our decision on the facts of this case should not preclude regulators in the future from departing from an approach set out in their strategy documents, nor should it require them to take companies' plans at face value. We explicitly recognise that in a context of future uncertainty created by technological innovation, the evidence base for decisions is likely to differ from, for example, an analysis of cost outcomes in a particular category of expenditure from a previous price control. Our decision on this appeal ground is fact-specific. It draws on our assessment of the specific approach that GEMA took and the evidence presented to us concerning the basis for GEMA's judgements in this particular part of its price control decision.

Remedy

4.146 If the CMA allows to any extent an appeal in relation to a price control, it must do one or more of the following:

- (a) quash the decision (to the extent that the appeal is allowed);
- (b) remit the matter back to GEMA for reconsideration and determination in accordance with any direction given by the CMA;
- (c) 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.

4.147 In its response to our provisional determination, GEMA referred to the possibility of introducing an 'uncertainty mechanism' to allow it to revisit the actual SGBs achieved by NPg 'later in the price control when more information should be available'. GEMA did not specify further details of the approach.

4.148 We considered carefully the regulatory, legal, economic and customer protection implications of having an uncertainty mechanism to cover NPg's SGBs in RIIO-ED1. In doing so, we took into account the RIIO principles guiding the use of uncertainty mechanisms as set out in GEMA's Strategy Decision and the potential justifications and drawbacks of uncertainty mechanisms as set out in that document.¹⁶⁶

4.149 There are potential benefits in certain circumstances for designing uncertainty mechanisms to deal with risk and uncertainty and GEMA had put in place a number of such mechanisms under RIIO-ED1. However, we note that a mechanism addressing uncertainty around SGBs would differ significantly from the other mechanisms in GEMA's Final Determinations. For example, the intention of such measures is generally to capture externally driven cost drivers rather than those within management control.

4.150 We note there are regulatory mechanisms already in place, such as the efficiency incentive sharing rate in the IQI, to maintain the right incentives for NPg to make rational economic decisions on the appropriate level of SGBs to pursue in the RIIO-ED1 period and to enable consumers to share in the benefits of such savings. We consider that it would be problematic to design an uncertainty mechanism that was proportionate to the value of SGBs projected for the period which would be affected by the uncertainty

¹⁶⁶ [Strategy Decision](#), paragraphs 2.6–2.10 and Table 2.1.

mechanism and that gave the right incentives in terms of value and timing on NPg to deliver SGBs. Taking into account our position in paragraphs 4.128 - 4.129 we do not consider that separating out SGBs from other totex efficiency opportunities would be desirable and would potentially distort incentives.

- 4.151 In summary, we consider that the extent of any relatively short-term potential benefits to consumers of putting in place an uncertainty mechanism to enable GEMA to re-evaluate NPg's SGBs during the price control period is uncertain and, in any event, outweighed by the regulatory burden, uncertainty and potentially distorted incentives that would be created and which may well have long-term disbenefits to consumers. We therefore do not agree that an uncertainty mechanism is an appropriate remedy for our decision on ground 1 of the NPg appeal.
- 4.152 We do not consider that remitting the matter back to GEMA for reconsideration and determination would be appropriate in the circumstances of this case.
- 4.153 In particular, we note that the move to an eight-year control period was expressly intended to provide greater certainty in a market where investment and innovation are important. Prolonged uncertainty resulting from further consideration by GEMA would, in our view, be undesirable and would not be justified given our conclusions in paragraphs 4.131 and 4.145 and the relatively small sums at issue in the context of the overall price control decision. As a result of the SGB adjustment, GEMA reduced its view of NPg's efficient costs downwards by £42 million. Taking into account one part of the IQI mechanism, interpolation, this reduced NPg's cost allowance by £31.5 million. This is equivalent to around 1.1%¹⁶⁷ of NPg's overall totex allowance.
- 4.154 Our view, therefore, is that this aspect of GEMA's decision in relation to NPg's licence cannot stand.
- 4.155 We consider how this reduction in GEMA's view of efficient costs may have affected NPg's final allowed revenue as a result of the way the other elements of the IQI mechanism are applied.
- 4.156 First, as a result of the SGB adjustment, NPg's IQI score was higher than it would have been absent the adjustment. This, in turn, means its efficiency incentive rate was slightly lower than it would have been without the SGB adjustment. The effect of this on NPg's revenue would have been that, all other things being equal, it would have retained a slightly lower percentage of

¹⁶⁷ Based on totex of £2,959 million (see Table 2.6 of the annex to the [Final Determinations](#) 'Business Plan Cost Assessment').

any underspend relative to its totex allowance and borne a slightly higher percentage of any overspend relative to this allowance. We propose to adjust the efficiency incentive rate that applies to NPg in accordance with GEMA's IQI matrix.

- 4.157 Second, a slightly lower efficiency score would also have reduced the level of its upfront reward under the IQI. We note, however, that GEMA recalibrated the IQI following its decision to adjust for RPEs and SGBs. This increased the upfront reward to NPg and was specifically intended to take account of the changes to GEMA's view of efficient allowances after the benchmarking exercise.
- 4.158 Taking all these factors into account, our view is that it is reasonable to treat GEMA's recalibration of the IQI as having already offset the impact of its SGB adjustment on upfront rewards or penalties: that is, we assume that GEMA had already made sure that NPg was facing upfront rewards or penalties that can be treated as consistent with the position where no SGB adjustment had been made.
- 4.159 In its response to our provisional determination, NPg said that while it considered this to apply a very strict interpretation of GEMA's approach to the IQI mechanism, it did not object to it. In its response to our provisional determination, GEMA agreed that it was reasonable to assume that its recalibration of the IQI had already adequately offset the impact of the SGB adjustment on upfront rewards or penalties.
- 4.160 We therefore do not consider it appropriate to revise NPg's upfront rewards or penalties as a result of this SGB adjustment. We note that other DNOs provided submissions which commented on the implication of the SGB decision for their revenues. We do not consider that there are any consequential effect on the revenues of other DNOs as a result of this appeal, which was brought by NPg alone.
- 4.161 Our conclusion therefore is that GEMA's decision in relation to NPg should be substituted so that NPg's totex is increased by £42 million (pre-interpolation) and that after applying the IQI matrix, its allowed totex is increased by £31.5 million. There should also be an adjustment to the efficiency incentive rate, consistent with this change in allowances, as we are retaining the IQI mechanism.

Implementation

- 4.162 The change in the SGB adjustment has a number of effects on the licence modification implemented by GEMA for RIIO-ED1 for NPg. The change to

SGBs results in a revised level of allowed revenue for NPg, both as a result of the change to the revenue associated with the totex allowance, and also the consequential tax effects.

- 4.163 Our amendments result in a change to the PU term which restricts the revenue for NPg, and changes to other Charge Restriction Conditions. We are implementing this change through an Order, which is published alongside this final determination. Along with our decision, the Order includes a number of small consequential changes, which are intended to ensure the effective implementation of our amendments to SGBs.¹⁶⁸ The change to SGBs results in a number of changes to the assumptions used within associated incentives, including the implied totex incentive rate for NPg.
- 4.164 We calculate the impact on the revenue and other terms within the licence using GEMA's ED1 Price Control Financial Model and associated supporting analysis provided by GEMA. The impact on NPg's revenue for RIIO-ED1 is an increase of approximately £11 million. This is lower than the adjustment to the totex allowance of £31.5 million, as the majority of the increase results in a higher RAV.^{169,170}
- 4.165 We are also amending the IQI cut-off as a result of the BGT appeal of GEMA's Decision. We are publishing a single Order to reflect the combined outcome of the two appeals on NPg's licence.

5. Ground 2: real price effects

Background

- 5.1 NPg's second ground of appeal concerns GEMA's approach to calculating RPEs and specifically the element relating to labour costs.
- 5.2 RPEs represent estimations of the changes in prices that DNOs will experience, over the price control period, relative to general inflation (as measured by the Retail Prices Index (RPI)). RPEs are made as ex ante adjustments at the start of the price control period based on expected forecast variances.

¹⁶⁸ We assume that the effect of our Order will be that the future Annual Iteration Process and, where appropriate, any future changes to GEMA's DPCR5 Regulatory Instructions and Guidance (RIGs) will be implemented to be consistent with our determination.

¹⁶⁹ Our analysis of the revenue impact of the NPg appeal compares a counterfactual scenario where we applied an adjustment to NPg's revenues to reflect the outcome of the BGT appeal only, to our actual determination on both appeals as reflected in the Order. The revenue effect includes small changes to reflect the impact of the higher totex assumption on tax allowances and also the smoothing of revenues over AMP6.

¹⁷⁰ There are also small changes to revenue to reflect re-profiling between years.

- 5.3 The principle of applying RPEs is commonplace in regulatory settlements, where future allowed revenues are generally indexed each year by RPI inflation (a concept that formed the basis of the 'RPI-X' utility regime established at privatisation). RPE adjustments are made to take into account the fact that not all cost inputs are reflective of the basket of prices that constitute the RPI measurement. NPg did not contest the principle of using RPEs in the regulatory determination; rather, it is certain details of the methodology applied that are at issue.
- 5.4 GEMA applied RPEs within its projection of totex for the slow-track DNOs. It considered five distinct categories of costs in its RPE assessment: labour; materials; transport; plant and machinery; and 'other'. NPg's ground of appeal concerns labour costs.
- 5.5 GEMA largely maintained its position on how it would approach the labour costs element of RPEs throughout its consultation on RIIO-ED1. In its strategy consultation, GEMA said that it was considering a number of available labour indices which reflected historical growth in wages for both the general economy and more specialist industries.¹⁷¹ It proposed to use these to construct a labour RPE and set out further details in its Draft Determinations. At this stage, it noted that it had assessed a wide range of input price indices including those used in previous price controls and in DNOs' submissions.¹⁷²
- 5.6 GEMA proposed an approach at Draft Determinations that would apply to all of its RPE inputs. The approach used in setting ED1 allowances would involve using a combination of actual cost data up to a base year; a suitable short-term forecast for the early years; and a medium-term forecast based on the historical real growth in the input price index data. For labour costs, GEMA proposed, in general, to adopt different indices for general and specialist labour.¹⁷³
- 5.7 In its Final Determinations, GEMA slightly altered, compared with its Draft Determinations, the method adopted in individual years but its broad approach was maintained. The detail of how it constructed its labour RPEs was set out in its business plan expenditure assessment annex to its Final Determinations.¹⁷⁴ First, it took 2013/14 as its base year, using DNOs' actual labour costs for this year. It then calculated three separate input price trends: for 2014/15, the first year of an RPE assumption; a short-term forecast for

¹⁷¹ [The Strategy Consultation](#), paragraph 11.10.

¹⁷² [Draft Determinations](#), paragraph 4.20.

¹⁷³ The 2015/16 forecast was based on a single index.

¹⁷⁴ [Final Determinations](#), Business plan expenditure assessment, paragraph 12.6.

2015/16; and medium-term forecasts for 2016/17 to 2022/23. Each was calculated as follows :

- The 2014/15 assumption was to be based on the out-turn from actual price indices for general and specialist labour for that year.
- 2015/16 – the assumption was based on the consensus forecast published in the October 2014 edition of the *HM Treasury Consensus Forecasts for the UK Economy*.¹⁷⁵ The consensus forecast for Average Weekly Earnings in the whole economy was adjusted with an uplift of 0.15% to reflect the fact that DNOs are private sector employers, whereas HM Treasury’s forecasts applied to the whole economy.
- 2016/23 – medium-term forecasts based on the historical averages of each of the general and specialist labour indices used for the 2014/15 calculation.

5.8 The specialist indices used, which were applied for the 2014/15 and 2016/23 labour RPEs but not for 2015/16, as described above, are shown in Table 6.¹⁷⁶

Table 6: GEMA’s Labour RPE’s at Final Determination

<i>Source</i>	<i>Index</i>	<i>Historical average real growth rate</i>	<i>Real growth rate in 2014/15</i>
General labour			
ONS*	Average Earning Index	Average real growth rate of combined index = 0.7% pa	N/A
ONS	Average Weekly Earnings		-1.9%
Specialist labour			
BEAMA†	Electrical labour	1.6% pa	1.7%
BCIS‡	70/1 Labour and supervision in civil engineering	1.1% pa	-1.1%

Source: Final Determinations – Business Plan Expenditure Assessment Annex, Table 12.3

*ONS: Office for National Statistics.

†BEAMA: British Electrotechnical and Allied Manufacturers’ Association.

‡BCIS: Building Cost Information Service.

5.9 The input price trends (applied in real terms, relative to RPI) derived from these methods are shown in Table 7.¹⁷⁷

¹⁷⁵ [HM Treasury Consensus of Independent Forecasts for the UK Economy October 2014](#).

¹⁷⁶ Data taken from [Final Determinations](#), Business Plan Expenditure Assessment Annex, Table 12.2, p151.

¹⁷⁷ [Final Determinations](#), Business Plan Expenditure Assessment Annex, Table 12.3. The value of 0.3% for specialist labour in 2014/15 is an average of the values in the previous table from the BEAMA and BCIS sources.

Table 7: Labour RPEs expressed in real terms

				%
	2013/14	2014/15	2015/16	2016/17 to 2022/23
General labour	-	-1.9	-0.5	0.4 pa
Specialist labour	-	0.3	-0.5	1.0 pa

Source: Final Determinations – Business Plan Expenditure Assessment Annex, Table 12.3.

5.10 GEMA applied its RPE adjustments after its totex calculations when projecting costs for the slow-track DNOs. Accordingly, GEMA’s choice of RPE adjustments do not influence the totex benchmarking models but they do have implications for the cost allowances which are then fed into GEMA’s IQI matrix.¹⁷⁸

Summary of NPg’s appeal ground 2

5.11 NPg’s appeal focused on a particular issue with GEMA’s approach to labour RPEs. NPg did not agree with GEMA’s approach to the year 2014/15 in particular, for which period it considers that actual data was available from DNO pay settlements and should have been used. NPg argued that the basis of the 2015/16 calculation would also fail to reflect properly the labour cost pressures faced by the DNOs. NPg contended that by the time this appeal was determined, DNOs’ actual pay settlements for 2015/16 would have been available. NPg’s ground of appeal did not challenge the approach taken for the medium-term forecasts for 2016/17 to 2022/23.

5.12 In alleging that GEMA was wrong in its choice of 2014/15 data, NPg argued that:¹⁷⁹

- (a) GEMA’s approach to labour RPEs was wrong because it rejected, without an adequate basis, data from DNOs’ own pay settlements for 2014/15, which were available to GEMA at the time of its decision;
- (b) the data GEMA did use for 2014/15, which was derived from external indices for general and specialist labour, did not reflect the labour costs faced by NPg. The external indices, it argued, had been affected by the recession to an extent that was not comparable with the effect of the recession on the DNOs’ labour costs;

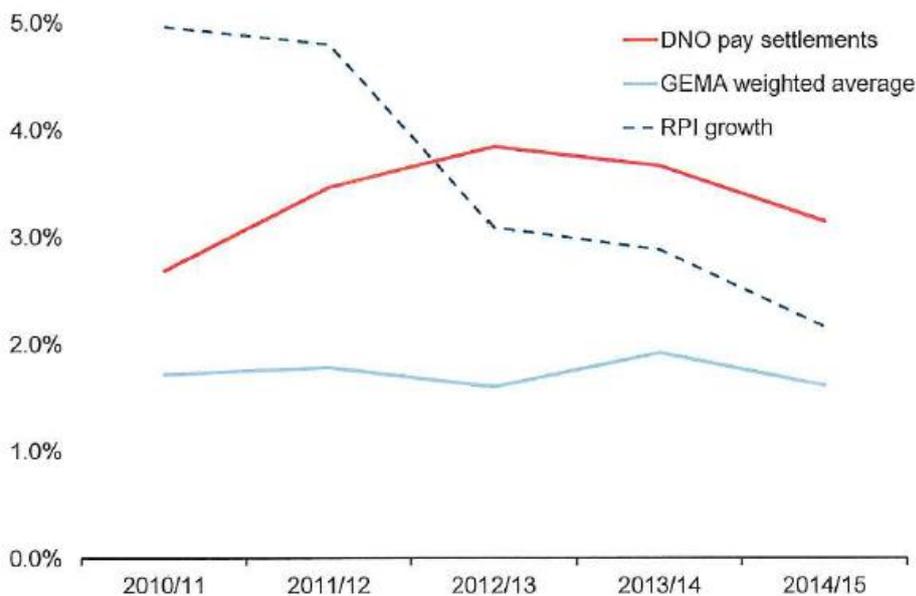
¹⁷⁸ The IQI is a mechanism designed to encourage companies to submit accurate expenditure forecasts during the price control review. It has three components: an ex ante reward or penalty dependent on how a DNO’s forecasts compare with GEMA’s view of efficient costs; an efficiency incentive rate; and setting of the DNO’s cost allowance through interpolation using a weighted average of 75% of GEMA’s assessment of efficient costs and 25% of the DNO’s forecast.

¹⁷⁹ NPg’s Notice of Appeal, paragraph 7.27.

- (c) GEMA preferred the external data sources over what NPg described as ‘manifestly more accurate data’ from DNO wage settlements, and in doing so GEMA relied on points alleged to be entirely speculative and unsubstantiated. NPg also argued that its workforce had more specialist labour specific to the electrical engineering sector whereas the external indices (BEAMA and BCIS) had a greater focus on manufacturing and construction activities;
- (d) by not ‘reality-checking’ its results against DNOs’ actual pay settlements, GEMA failed to take steps that would have led a reasonable authority to question the output from its chosen approach.

5.13 In support of its Notice of Appeal, NPg submitted a report from Frontier Economics (the Frontier Report). Included in the Frontier Report and the Notice of Appeal was a graph that compares DNOs’ pay settlements with GEMA’s benchmark indices. This is reproduced below.

Figure 3: Comparison of GEMA labour cost information with DNO pay settlements, 2010/11 to 2014/15



Source: NPg Frontier Report, Figure 3.

5.14 Based on this analysis of DNO pay data, NPg proposed that GEMA should have used actual pay growth for 2014/15 of [3–4]%. NPg proposed a single figure for RPEs for both general and specialist labour, as this average figure could be determined from actual labour cost data and did not require a potentially arbitrary allocation of actual labour costs between the two categories. NPg’s proposal compared with GEMA’s approach is represented in Table 8.

Table 8: Comparison of GEMA and NPg’s Labour RPEs

	<i>GEMA’s real estimate</i>	<i>GEMA’s nominal* equivalent</i>	<i>NPg’s nominal level</i>
2014/15 level of wage growth for ‘general’ labour	-1.9†	0.6	[3–4]‡
2014/15 level of wage growth for ‘specialist’ labour	0.3§	2.7	[3–4]¶

Source: CMA analysis.

*Based on RPI of 2.4% estimated at the time of the FD for 2014/15 (as noted in row 1 of Table 12.2 of the annex to the Final Determinations).

†GEMA, Final Determinations: Business Plan Expenditure Assessment Annex, Table 12.3.

‡Frontier Report, Table 21, p83.

§GEMA, Final Determinations: Business Plan Expenditure Assessment Annex, Table 12.3. The value of 0.3% is an average of the BEAMA value of 1.7% and the BCIS value of -1.1%.

¶Frontier Report, Table 21, p83.

5.15 In its Notice of Appeal,¹⁸⁰ NPg also pointed to its submissions, at various stages during the price control consultation, in which it had raised its concerns about GEMA’s proposed approach. In support of its case, NPg cited GEMA’s responses during the consultation process, ie that GEMA’s justification of its approach relied on points that were speculative and unsubstantiated.

5.16 NPg estimated that what it contended were GEMA’s errors in relation to RPEs resulted in GEMA’s view of NPg’s total costs being £41.1 million lower than they otherwise would have been.¹⁸¹

Summary of GEMA’s response to appeal ground 2

5.17 GEMA argued that it would have been inappropriate for it to have relied on actual DNO pay settlement data to determine labour RPEs. It considered that RPEs should be set so as to represent a measure of trends in efficient costs. As such, the approach to RPEs should incentivise and finance efficient operations. It noted that this was a consistent policy position explained and adopted in previous price controls. GEMA maintained that the purpose of RPEs was to capture external cost pressures on the DNOs that were outside its control; its purpose was not to match the DNOs’ actual costs. Thus, the intention was for RPEs to be based on market conditions, in this case, for the labour market, rather than on the decisions reached by DNOs in response to those market conditions. It therefore considered that the approach was in line with its objective to provide incentives to DNOs to pursue efficient costs in the absence of competitive market forces operating in the sector.

¹⁸⁰ NPg’s Notice of Appeal, paragraph 7.27(d).

¹⁸¹ NPg’s Notice of Appeal, paragraph 7.7.

- 5.18 GEMA defended the robustness of its data sources. It contended that the indices adopted (ONS, BCIS, and BEAMA) ‘constituted a range of reputable and appropriate data sources’.¹⁸² It noted that NPg, and other DNOs, used specialist indices which were used by GEMA in deriving their business plan cost projections.
- 5.19 GEMA considered that the separation of ‘specialist’ labour provided an appropriate balance between identifying cost pressures from the electricity sector yet not fully adopting actual pay data or indices heavily influenced by DNOs. GEMA stated¹⁸³ that using data sources which were influenced by actual DNO costs (whether at the firm level or at the industry level) would have weakened incentives of the DNOs to yield efficient pay levels. GEMA also noted that NPg had not offered alternative independent indices in its appeal.
- 5.20 GEMA’s position was broadly supported by Citizens Advice¹⁸⁴ in its submission as an interested third party. Citizens Advice focused on the principle as to whether actual pay settlements of DNOs should be taken into account in the setting of labour cost RPEs. It said that they should not and argued that ‘indexing the networks’ costs against appropriate proxies in the broader economy makes for more competitive and fairer settlements’.
- 5.21 GEMA also suggested that NPg was well aware that it considered DNO pay settlement data to be an inappropriate proxy for labour RPEs.¹⁸⁵ GEMA noted that NPg had made the argument which it advanced in this appeal in the course of the previous price control process (DPCR5). GEMA’s response to NPg’s argument in DPCR5 had also been that DNO pay settlement data was an inappropriate basis upon which to assess RPEs.

Summary of NPg’s Reply to appeal ground 2

- 5.22 In its Reply, NPg maintained its position that GEMA’s Response had not provided suitable justification for its use of external indices to calculate labour RPEs. NPg said that the use of DNO pay settlements was consistent with other benchmarking assessments used for the RIIO-ED1 price control. NPg also suggested that GEMA’s concerns over the efficiency of DNO pay settlements were unfounded and that DNOs had strong incentives to reach efficient pay deals.

¹⁸² [GEMA’s Response](#), paragraph 195.

¹⁸³ [GEMA’s Response](#), paragraph 184.

¹⁸⁴ [Citizens Advice letter \(22 April 2015\)](#), paragraphs 31.2 & 3.13.

¹⁸⁵ [GEMA’s Response](#), paragraph 185.

Our assessment of appeal ground 2

5.23 We consider the following questions in reaching our determination:

- (a) Was GEMA wrong in principle to use external evidence rather than DNO data?
- (b) Was GEMA's approach consistent with good regulatory principles and practice?
- (c) Were the indices GEMA used in implementing its approach appropriate?

GEMA's use of external evidence rather than Distribution Network Operator data

5.24 NPg argued that GEMA should have used the 2014/15 DNO pay settlement data that may have been available to it as its starting point for calculating labour RPEs. GEMA did not consider the use of DNO data and instead sought to establish the most appropriate external proxy for efficient RPEs for the DNOs.

5.25 The assessment of the issue of 2014/15 RPEs needs to be reviewed in the context of the wider basis of the labour cost assessment in RIIO-ED1 and the extent to which the actual labour costs historically incurred by the DNOs were taken into account within that assessment.

5.26 As set out in paragraph 5.6, the calculation of labour costs starts with a base year, in this case 2013/14. The starting point for this base year is the labour costs actually incurred in that year by the relevant DNO and these actual costs are therefore included within the cost assessment. The assessment of labour costs in the ED1 period is based on historical actual costs and how those costs are forecast to change due to labour market pressures. It was the basis on which those forecast changes were made that NPg challenged.

5.27 The principles underpinning the approach of using external indices rather than actual pay settlements to forecast RPEs were set out in GEMA's Final Determinations and it was those principles that were challenged by NPg in its Notice of Appeal. GEMA rejected suggestions that it should have relied on DNOs' actual wage settlement decisions as the basis for its 2014/15 calculation. In support of its approach, GEMA argued that 'the RPE assumption is not intended to match the costs that DNOs will, or have actually, faced. Rather it is intended to reflect the external pressures on costs, relative to economy-wide inflation, that are outside of their control'. GEMA explained further in its annex to the Final Determinations stating that it would be 'inappropriate to factor DNOs' own pay deals into the RPE assumption [as] to do so could amount to consumers paying for inefficient pay deals'.

- 5.28 In response, NPg argued that it was fully incentivised to pursue efficient costs and that DNOs' actual pay settlements should, as it argued at its hearing, be 'the starting point'. In support of this argument, it submitted analysis of NPg's wage settlements relative to data provided by the Hay Group on pay increases for employees in continuous employment in a sample of utility businesses. It expanded on these arguments at the hearing, pointing to the incentives inherent in the regulatory framework and pressures from investors to control all costs including labour costs.
- 5.29 In our view, it is likely to be the case, as NPg argued, that it had incentives to pursue pay deals with its employees that were efficient at least relative to other DNOs. This is because of the impact that these pay settlements would have had on its relative position within the comparative total efficiency modelling that GEMA undertakes. Similarly, we do not disagree that its investors will apply pressure on it to reduce labour costs in general.
- 5.30 Nevertheless, there are differences between the incentives from a relative process comparing a set of monopoly companies and the workings of a competitive product market. This is a particular concern at the industry level. The regulatory framework is based on benchmarking of companies within the industry and this cannot therefore take account of any inefficiency at the industry level. It is therefore a standard approach within economic regulation to consider whether direct comparators exist such that competitive market incentives can be introduced. Against this background, the use of RPEs based on data outside the industry is one way of introducing cost incentives at the industry level.
- 5.31 Part of NPg's evidence was a comparison of the average DNOs' pay settlements with equivalent data for the utility sector in general. NPg said that its pay settlements were representative of labour cost pressures in the wider utility sector. This does not, in our view, address the concerns about the relative efficiency of DNOs' 2014/15 actual pay settlements compared with competitive markets. Companies operating in the wider utility sector are not necessarily representative of the wider labour market and some may be operating in parts of the market not fully open to competition. Furthermore, the data source is from Hay's client database, whereas GEMA used independent sources drawn from the whole economy, such as the ONS data.
- 5.32 There is, in our view, and on this basis, nothing wrong in principle with the regulator being sceptical that the process of regulation and comparative competition can fully replicate the cost pressures faced by a company in a competitive market. As such, we share GEMA's unwillingness to accept assertions that DNO pay settlements are necessarily efficient compared with

companies operating in the wider labour market. It follows from these conclusions that we do not consider that relying on DNO pay settlements to set RPEs in 2014/15 is a better approach in principle than that adopted by GEMA.

- 5.33 Furthermore, using the DNO wage settlements for 2014/15, as NPg proposed, would have involved relying on an agreement reached in the last year of one price control to set labour RPEs which would have an impact on prices for the next eight years. If the DNOs were aware that this approach would be applied, this could have weakened incentives for the companies in reaching wage settlements with their workforce, and could in theory have introduced perverse incentives into the timing and level of DNO wage settlements around the relevant period.¹⁸⁶ Such an outcome would also, in our view, be inconsistent with GEMA's objective to incentivise companies relative to the general labour market including companies operating in a competitive environment.
- 5.34 Another way of approaching this issue is to consider whether using actual data for RPEs for 2014/15 would have been more consistent with the principle that that year formed part of DPCR5, and therefore effectively part of the base costs, prior to application of an efficiency challenge based on external data sources during RIIO-ED1. Clearly NPg could not have improved efficiency in 2014/15 itself. However, this does not mean that it was wrong to look at evidence as to whether base costs were efficient. GEMA made clear at the hearing that it had sought to apply efficiency benchmarking from outside the industry where feasible. Specifically, GEMA's approach sought to make an efficiency adjustment to RIIO-ED1 costs through making an assumption around efficient labour cost inflation in the final year of DPCR5. In other words, if the base year costs were higher than efficient levels, then the forecast costs would also have been higher than efficient levels.
- 5.35 Also, we note that pay settlements do not necessarily translate directly into RPEs. For example, unlike pay settlement data, out-turn cost data is finalised and will be audited and any quoted pay award data will only apply to direct employees, not contractors. Furthermore, pay awards do not correspond directly to the annual change in employment costs since other factors will influence the out-turn level.¹⁸⁷ Such factors make relative comparisons of pay deals only one component of any assessment of efficient labour costs. In our

¹⁸⁶ We note that NPg's Reply included an explanation of why, under the regulatory framework, no individual DNO should in theory have the incentive to increase wage settlements, independent of the behaviour of other DNOs. However, if it were generally understood that actual settlements in particular years were likely to form a part of GEMA's assumptions, it is likely to influence the incentives around wage settlements at the industry level over the relevant period.

¹⁸⁷ For example, staff numbers and structure (mix of senior/junior staff, or specialist/general), use of temporary staff, pay drift, overtime and bonus levels, training costs, standby rotas and changes to terms and conditions.

view, this provides additional support to the decision to base the Determination on indices, which are based on trends in out-turn data.

- 5.36 We therefore agree that it was appropriate for GEMA to seek to use external indices to determine the labour RPEs and to adopt a position that external indices would be preferable to data collected from DNOs on their most recent pay settlements.

Regulatory precedent

- 5.37 We note that, notwithstanding consideration of the indices that it relied upon, GEMA's general approach in ED1 to forecasting labour RPEs was consistent with the practice adopted in its own recent price controls and that adopted by other regulators. For example, GEMA also constructed labour RPEs based on external indices reflecting wider labour market conditions in its decisions in GD1 and T1 under the RIIO framework, and also in earlier price controls for DNOs. Similarly, we found no evidence, and none was put to us, of any sector regulators using the actual wage settlements of the regulated companies subject to the price control to construct RPE forecasts for those companies.
- 5.38 As was flagged by both parties, a similar question was considered by the CC in its decision in the Northern Ireland Electricity (NIE) redetermination. In this decision,¹⁸⁸ the CC rejected representations from NIE that, for the historical estimate, its actual wage settlements should be used. While the CC recognised that NIE's proposed approach had the advantage of accurately reflecting the actual agreements which it had reached with its workforce during the period in question, this advantage was outweighed by two disadvantages. First, it noted that using NIE's settlements would amount to a straight pass-through of actual wage settlements to consumers, which risked rewarding a company for inefficient wage settlements. Secondly, wage settlements represented only a partial measure of a company's labour costs. For example, they did not properly capture the price of bought-in labour, such as subcontractors.
- 5.39 This decision was taken as part of a redetermination based on facts in a different case. Nevertheless, the concerns expressed about the risks of a cost pass-through, and the extent to which wage settlements may represent only a partial measure, are concerns that we share.
- 5.40 NPg suggested that these risks could be mitigated by the use of an index based on other DNOs and/or an upper quartile approach to benchmarking

¹⁸⁸ CC (26 March 2014), [Northern Ireland Electricity Limited price determination: Final determination](#), paragraph 11.52.

actual DNO RPEs. NPg argued that the data of all DNOs could be used in a way that an individual DNO's data could be excluded from its own efficiency targets. This is potentially a valid approach, although not necessarily straightforward. We note that in the NIE case, the CC had made use of the GB DNO pay settlements, together with other indices.

- 5.41 However, the CC approach used GB DNO data as a benchmark external to Northern Ireland. NPg's proposal to apply a similar approach for RIIO-ED1 would have had the effect of applying industry GB DNO wage inflation to all GB DNOs. By contrast, the NIE decision was based on balancing the evidence from suitable external data sources which could have been applied in setting suitable efficiency incentives within the specific Northern Ireland electricity sector. As such, while there are some parallels between the CC approach in NIE and NPg's proposed alternative to the GEMA indices, there are also important differences, and we do not consider that this was a precedent that GEMA was obliged to adopt for RIIO-ED1.

GEMA's chosen indices

- 5.42 We consider the specific indices that GEMA used to construct its labour RPEs and the criticisms of them made by NPg. In doing so, we consider whether the evidence presented by NPg showing an apparent divergence between these indices and changes in actual DNO labour costs should have led GEMA to take a different approach.
- 5.43 In its Notice of Appeal, and by reference to the Frontier Report, NPg argued that the indices GEMA relied upon for its labour cost forecasts did not reflect the workforce composition and hence costs faced by NPg. In support of this argument, it submitted data highlighting the divergence between GEMA's benchmark indices and DNOs' own pay settlements (see Table 8 above). It argued that this was because the recession had not had such significant effects on the supply and demand for labour for DNOs as it had done for the wider labour market. We note that NPg did not suggest alternative external sources, despite GEMA being clear and consistent that this was its approach. NPg instead continued to suggest it was appropriate to adopt the DNOs' actual wage settlements for 2014/15. In its Reply, NPg stated that it had not offered alternative indices because its case was that GEMA was wrong to disregard DNOs' own data because there were flaws with all of the proxies available to it.¹⁸⁹

¹⁸⁹ NPg's Reply, paragraph 3.15.

- 5.44 NPg criticised GEMA's use of the BEAMA and BCIS indices for specialist labour. It noted that the BEAMA index was representative of the electrical manufacturing sector and that the BCIS index was for the construction sector, neither of which applied directly to the DNOs. At the hearing, it also repeated a criticism made in response to the Draft Determinations and in the evidence provided in support of its Notice of Appeal, that there should be an adjustment to labour RPEs to account for evidence that those in continuous employment receive higher wage growth. This latter point was rejected by GEMA at Final Determinations on the basis that DNOs had not provided evidence that they had a higher proportion of continuously employed staff than the wider economy or that structural changes to the labour market had affected them differently.
- 5.45 GEMA defended its labour indices, arguing that they 'constituted a range of reputable and appropriate data sources'. It also noted that NPg and other DNOs used specialist indices in their business plans and that GEMA's approach was consistent with these indices.
- 5.46 NPg did not, in our view, provide sufficient evidence for us to conclude that these indices were the wrong indices to use. Its central argument was that GEMA's indices were not consistent with recent DNO pay settlements and that DNOs were to some extent immune from the recessionary effects on the wider labour market. Another interpretation of NPg's statement that its wage settlements were immune from the recession could be that this represented evidence that it approached its wage negotiations in a different manner from those operating in commercial markets.
- 5.47 In practice, it is for NPg to agree wage rates for individual categories of staff. GEMA's choice of indices does not set NPg's wage rates, but are intended to represent benchmarks for DNOs in balancing the use of wage rates with other aspects of operational management (including, for example, staff retention) when seeking to optimise productive efficiency.
- 5.48 We note that GEMA deliberately selected indices that were not directly influenced by DNO pay settlements, and therefore it was not surprising that the indices did not correlate directly with the skills of the DNOs workforce.
- 5.49 In support of its case, NPg provided evidence from Frontier Economics that queried the relevance of the indices applied by GEMA. In particular:
- (a) the skills mix within the BEAMA index used by GEMA, and the impact of the recession on this index;
 - (b) the relevance of construction indices such as BCIS, which would be more exposed to cyclical factors; and

- (c) the relevance of general indices such as Average Weekly Earnings, which would not reflect that DNOs have a greater proportion of continuous labour.
- 5.50 We do not consider that any of these points addressed the core of the challenge by GEMA that the DNOs should have been able, on average, to manage labour cost inflation (as measured by RPEs) to a level comparable to other industries. Any evidence that DNOs did not manage their costs to comparable levels could not in itself have demonstrated that the indices were wrong.
- 5.51 The specific challenges made by NPg to GEMA's choice of indices also did not appear to us to undermine the approach of benchmarking against these industries:
- (a) **General labour:** NPg provided some evidence that general wage inflation indices were different from actual DNO inflation due to the higher than average share of employees in continuous employment. However, we do not consider that this undermined the case for setting a target based on general wage inflation. The implication of NPg's conclusions appears to be that DNO employees should have expected to both systematically have higher earnings for comparable activities, and also that the earnings gap to other industries should have increased systematically over time. We consider it reasonable for GEMA to have provided incentives to seek to mitigate such potential outcomes.
- (b) **Specialist labour:** NPg provided some evidence that there may be different cyclical effects in specialist industries, for example during a severe recession, where there are sharp changes in output and therefore in supply and demand conditions. We consider that this is likely to have a temporary impact on wage differentials. However, we note that in practice, NPg's evidence indicated that the differential was primarily driven by the difference between actual DNO wage inflation and GEMA's assumed index for general inflation. We note that the differential in specialist labour is a secondary effect. In addition, whilst there may be ongoing wage pressures in specialist labour markets, the evidence provided indicated that the most material effects on other specialist industries were in the earlier years of the recession. We are not therefore persuaded that this should have a material effect on the choice of efficiency targets for 2014/15 RPEs.
- 5.52 The indices used by GEMA were based on actual out-turn data from sectors that employed staff in comparable activities to those of DNOs. NPg did not provide evidence of differences in the activities of its own staff that would

demonstrate a material divergence in activity from those within these indices. It did not appeal the use of data from long-term trends in these indices beyond 2016/17. Its case was focused on whether these indices (or indeed, any indices) were relevant for the specific year 2014/15.

- 5.53 Again, it seems to us to be a sound assumption that DNOs should be able to incur efficient RPEs consistent with benchmarks from comparable industries. This is a benefit of GEMA's approach in promoting efficiency, relative to the approaches proposed by NPg, assuming that GEMA is able to identify an index of comparable labour costs. We therefore consider that it was not wrong to apply relevant indices from comparable sectors, unless there was clear evidence that those indices did not in practice provide a reliable benchmark for the labour costs incurred by DNOs.
- 5.54 The question nevertheless remains whether GEMA should, as NPg contended, have checked its results against DNOs' actual pay settlements and, having done so, tested the strength of the assumption that its chosen indices formed a reliable benchmark.
- 5.55 In that context, we note NPg's case that DNO pay settlement data was, at least, a relevant data point consistent with the CC's decision on NIE. When calculating its historical estimate for labour inflation, the CC placed most weight on the wage settlements of the GB electricity network companies. It was also the case that NPg's analysis showed a divergence between DNO pay settlements since 2010/11 and GEMA's weighted average from its indices over the same period.
- 5.56 However, while it was open to GEMA to consider other data sources, including recent DNO wage settlements, it is far from clear to us that it was wrong for it not to do so for 2014/15. We agree with GEMA's view, as set out in its Response, that the argument that it should have carried out a 'reality check' was essentially a reiteration of NPg's arguments that actual DNO pay settlements should have been used. As GEMA noted in its Response,¹⁹⁰ it was not its intention in setting labour RPEs to match DNOs' actual costs. The fact that the latest pay settlement, or indeed those in recent years, differed from the chosen indices was not evidence, in itself, that those indices were not appropriate in meeting GEMA's regulatory objective to incentivise DNOs to pursue efficient costs in the absence of competitive pressures.
- 5.57 It was therefore not, in our view, incumbent on GEMA to have made a comparison with DNO wage settlements or acted on it on the basis of

¹⁹⁰ [GEMA's Response](#), paragraph 189 (b) (i).

differences between those settlements and its chosen indices. NPg's assertions that its pay settlements for 2014/15 were efficient would not in itself mean that GEMA was not correct, as part of its overall approach to determining efficient costs, to have applied an externally based challenge to RPEs across the RIIO-ED1 period.

5.58 In any case, we note above that the greatest differential between the data provided by NPg and GEMA was in the area of general labour. In this area, it is clear that GEMA's intention was not to identify a direct proxy for NPg's staff. Our understanding is that the rationale for using general indices is in order to apply a benchmark from objective data on the wage pressures within the general economy. NPg's submissions did not persuade us that there were good reasons why it should not have been able to manage its labour costs at a level comparable to the indices provided by GEMA. Therefore, it does not appear to us that any comparison between its wage settlements and the index for general labour should have materially influenced GEMA's decision on RPEs.

Conclusion on appeal ground 2

5.59 For the reasons set out above in paragraphs 5.23 to 5.56, we determine that GEMA was not wrong, on any of the statutory grounds advanced by NPg, to reject the use of DNOs' pay settlements for its labour RPE assumptions. NPg did not provide convincing evidence that the external indices relied upon by GEMA did not reflect a suitable benchmark for trends in labour costs faced by DNOs and therefore we do not find that GEMA was wrong to use them. GEMA was also not wrong to prefer external indices over DNO pay settlement data nor do we find that it was obliged to have 'reality-checked' its results against actual pay settlements. Therefore, we dismiss NPg's appeal on this ground.

6. Ground 3: regional labour cost adjustments

Background

6.1 NPg's third ground concerned GEMA's adjustments to DNOs' labour cost data intended to reflect regional labour cost differences. These adjustments were made at the first stage of GEMA's totex modelling which involved reviewing and normalising the data. The purpose of these adjustments was to allow benchmarking to be undertaken on a like-for-like basis once cost differences that were outside management control were taken into account. Other adjustments at this point were also made for company-specific adjustments ('special factors') and some other cost exclusions.

- 6.2 As with RPEs, the principle of applying regional labour cost adjustments (RLCAs) is common in regulatory settlements. NPg did not challenge the principle; it challenged the methodology applied by GEMA in calculating the adjustments and the effect that this had on its final revenue control.
- 6.3 In its Strategy Decision,¹⁹¹ GEMA said that a high bar would be used when considering whether to apply regional and company-specific cost adjustments in its new cost assessment framework. At Draft Determinations, GEMA described its intention to use the ONS’s Annual Survey of Hours and Earnings (ASHE) data set to calculate RLCAs. This survey collects data on pay across occupations for each of 11 regions. GEMA considered the data over the period 2008 to 2012.¹⁹²
- 6.4 The Standard Occupational Classification (SOC) classification in the ASHE data set comprises a hierarchical structure of four levels of data as shown in Table 9 below. Occupations are classified in terms of their skill level and skill content and are aggregated by reference to similarity of qualifications, training, skills and experience of the relevant tasks. It is common ground that the sample sizes reduce as the granularity of the SOC code increases, since the outputs of the less granular codes are formed by amalgamating the data to that used in the more granular codes.

Table 9: ASHE data set occupational groups

<i>Granularity of SOC code</i>	<i>Description</i>	<i>Number available</i>
1-digit	'Major group'	9
2-digit	'Sub-major group'	25
3-digit	'Minor group'	90
4-digit	'Occupational unit groups'	369

Source: First witness statement of Keith Noble-Nesbitt, paragraph 30. Also in witness statement of Joel Cook, paragraph 18.

- 6.5 GEMA used this data set to normalise the data for all DNOs by using labour cost differentials between London; the South East; and elsewhere in Great Britain. It proposed not to make adjustments between areas in the rest of Great Britain because it considered labour to be sufficiently mobile outside London and the South East and it did not see evidence of major regional differences outside these areas.
- 6.6 At the Final Determinations, GEMA confirmed its broad approach with minor adjustments to the calculation. GEMA removed the weighting on some SOC codes which it did not consider relevant. It also used notional weightings to

¹⁹¹ [Strategy Decision](#), Tools for cost assessment annex, pp17–18.

¹⁹² [ONS ASHE data set: Annual Survey of Hours and Earnings](#).

individual activity areas based on DNO averages when applying the regional labour adjustments, consistent with the calculation approach for RPEs.

6.7 GEMA’s assessment of regional labour costs using the methodology set out in its Final Determinations found variances as follows:¹⁹³

- London – a 19% positive cost differential to the Great Britain average;
- South East – a 5% positive cost differential to the Great Britain average; and
- the rest of Great Britain – a 3% negative cost differential to the GB average.

6.8 GEMA estimated the effect of its RLCAs on the DNOs, and the effect of its changes between Draft and Final Determinations, in a table reproduced below:¹⁹⁴

Table 10: Labour cost adjustments by GEMA at Draft and Final Determinations

	<i>Labour cost adjustments</i>		<i>Difference</i>
	<i>Draft Determination</i>	<i>Final Determination</i>	
NPg	59	44	-15
UKPN	-299	-262	37
Southern SSE	-59	-58	1
All other DNOs (inc WPD)	180	170	-10

Source: [Final Determinations](#), Business Plan Cost Assessment Annex, Table 4.3, p43.

Summary of NPg’s appeal ground 3

6.9 NPg argued that GEMA had used an incorrect approach to calculate the regional labour differences and that this approach materially overstated the premia in both London and in the South East, relative to the rest of Great Britain. NPg suggested that this led to an error in the efficiency assessments which excessively increased the labour costs of those DNOs operating in the rest of Great Britain. This resulted in a worsening of NPg’s relative efficiency in the benchmarking exercise which reduced its totex allowance in the Final Determinations. NPg contended that the alleged errors resulted in GEMA’s view that NPg’s total costs were £21.3 million lower than they otherwise would have been.¹⁹⁵

¹⁹³ As described in paragraph 8.14 of the [Notice of Appeal](#) and confirmed by GEMA. These are regional labour cost differentials (RLCDs).

¹⁹⁴ [Final Determinations](#), Business Plan Cost Assessment Annex, Table 4.3, p43.

¹⁹⁵ [NPg’s Notice of Appeal](#), paragraph 8.6.

6.10 NPg summarised what it contended were GEMA's errors in its calculation of RLCAs as follows:¹⁹⁶

GEMA sought to work out the differences in the cost of labour between London, the South East and the rest of Great Britain (RLCDs) by using general 2-digit data from the ASHE dataset (2008/2012) which is supplied by the ONS. This 2-digit data was not accurate because the results were distorted by compositional bias or mix issues. The ONS itself warned users of its database of this issue.

GEMA could readily have resolved this issue, for example, by using more granular like-for-like data, which showed a much lower premium for London and the South East relative to the rest of Great Britain.

6.11 NPg supported its arguments with detailed witness statements provided with its Notice of Appeal from Keith Noble-Nesbitt, an employee of NPg (Noble-Nesbitt 1) and with its Reply (Noble-Nesbitt 2). These expanded on NPg's criticisms of GEMA's approach and set out an alternative methodology, which NPg argued resolved the alleged errors. We consider this analysis in more detail in our assessment.

6.12 On the specifics of GEMA's approach, supported by evidence within the witness statements, NPg's case that GEMA's conclusions were wrong can be summarised as follows:

(a) **Accurate data:** First, NPg stated that data was available for GEMA to provide a more accurate reflection of regional labour cost differences specific to the DNOs. NPg said that, in its view, GEMA provided no adequate explanation as to why it did not use this more accurate data.¹⁹⁷ By using the two-digit SOC code data, rather than more industry-specific alternatives such as a three-digit or four-digit approach, NPg considered that GEMA had used the data set in a way that did not reflect the specific labour cost differences of the DNOs. In support of this, NPg¹⁹⁸ also referred to the more granular data that the CC had used for the NIE price determination in March 2014.

(b) **Compositional bias:** NPg also argued that GEMA's approach was more prone to compositional bias than alternatives. Compositional bias relates to the existence of different jobs within the same SOC code in different

¹⁹⁶ NPg's Notice of Appeal, paragraph 8.3.

¹⁹⁷ NPg's Notice of Appeal, paragraphs 2.23, 8.3(b) & 8.21.

¹⁹⁸ NPg's Notice of Appeal, paragraph 8.21(a).

regions, meaning that the index is not like-for-like. This can occur either through different roles or through alternative employment arrangements (eg direct employment vs consultant). NPg argued that compositional bias was far more prevalent at the two-digit level since it was not possible to have like-for-like comparisons of wages when the very broad occupation categories were included. NPg did not, however, claim to provide a means of completely addressing the problems of compositional bias. It proposed a method of calculation which it nevertheless considered better addressed these issues than GEMA's approach.

- (c) **Use of alternative data sources:** NPg also contended that GEMA failed to cross-check its results with other sources of data, such as that provided by Hay Group and IDS,¹⁹⁹ which were available to estimate regional labour cost differences. NPg's analysis suggested that the London premium calculated by GEMA of 22.6% (relative to the rest of Great Britain), in particular, was higher than estimates taken from these other sources. This net London premium of 22.6% was based on a positive London adjustment of 19.3% and a negative adjustment for the rest of GB of 2.7%.
- (d) **Approach to modelling:** NPg stated that GEMA had also failed to consider the possibility that it could have applied regional factors within its econometric models, rather than using RLCAs at all. NPg proposed that this alternative modelling approach would have removed the errors that NPg alleged GEMA made.

6.13 NPg proposed that GEMA should have applied RLCAs of 10 to 15% for London, and 0 to 5% for the South East. NPg argued that this was based on a range of evidence, rather than a single data point, and stated that GEMA should also have considered taking its estimate from a range of approaches (ie 'triangulation'). It stated²⁰⁰ that a cautious approach to the evidence was appropriate, and proposed that the CMA should apply alternative RLCAs of 10% for London and 0% for the South East.

Summary of GEMA's response to appeal ground 3

6.14 In its Response,²⁰¹ GEMA stressed the narrowness of NPg's appeal ground. It argued that its approach was rational, justified, and that NPg had failed to

¹⁹⁹ The Hay Group and Income Data Services (IDS).

²⁰⁰ NPg's Notice of Appeal, paragraph 8.24.

²⁰¹ GEMA's Response, pp129–140.

demonstrate any relevant flaw. It supported its arguments with a witness statement from Joel Cook of CEPA²⁰² on behalf of GEMA (Cook).

- 6.15 GEMA's principal comment,²⁰³ in response to the challenge of whether it used the correct level of SOC code to identify an accurate evidence base for calculating RLCAs, was that the decision to use a two-digit code was taken 'in order to strike a balance between using data which contained relevant occupations on the one hand and avoiding small sample sizes on the other'.
- 6.16 GEMA identified a range of problems with the use of four-digit data. In particular, GEMA noted that the errors associated with four-digit data were much higher than for two-digit data (as measured by the co-efficient of variation). GEMA sought to support this theoretical evidence through practical analysis of how RLCAs had fluctuated over the period.
- 6.17 GEMA also argued that the compositional issues put forward by NPg were possible at any level of the SOC code. Its illustrations of this argument and the counterarguments put forward by NPg are central to the witness statements the appellants and respondents have put forward and are discussed further in the next section.
- 6.18 Although it was not a core part of its argument, GEMA noted the potential for industry bias in four-digit data as it could be perceived to be overly influenced by the DNOs' own wage settlements.
- 6.19 GEMA did not agree that it was bound by the NIE approach that had used three-digit and four-digit SOC codes and argued that the alternative data sources proposed by NPg might not be robust independent sources for 'reality-checks'. It criticised what it argued was NPg's selective approach to identifying appropriate SOC categories and contended that, in presenting an alternative approach, NPg had not demonstrated that GEMA's was wrong.
- 6.20 GEMA also contested the effect of the difference between its approach and that advocated by NPg, suggesting this was much lower than the £21.5 million estimated by NPg.

Summary of NPg's Reply to appeal ground 3

- 6.21 In its Reply, NPg supplied a second witness statement from Keith Noble-Nesbitt that sought to address each of the points made in Cook.

²⁰² Cambridge Economic Policy Associates, a consulting firm employed by GEMA to support its work on RLCAs.

²⁰³ [GEMA's Response](#) (22 April 2015), paragraph 207(c), p130.

6.22 NPg also argued that GEMA's various criticisms of the approach that NPg included in its Notice of Appeal were unfounded. In particular NPg contested the points made by GEMA regarding small sample sizes and potential industry bias with the four-digit codes. NPg suggested that data volatility issues could be addressed by averaging. NPg also continued to argue that GEMA's failure to take mitigating action to counter the compositional issues in the two-digit codes led to an inflated estimate of the RLCAs for London and the South East.

Our assessment of appeal ground 3

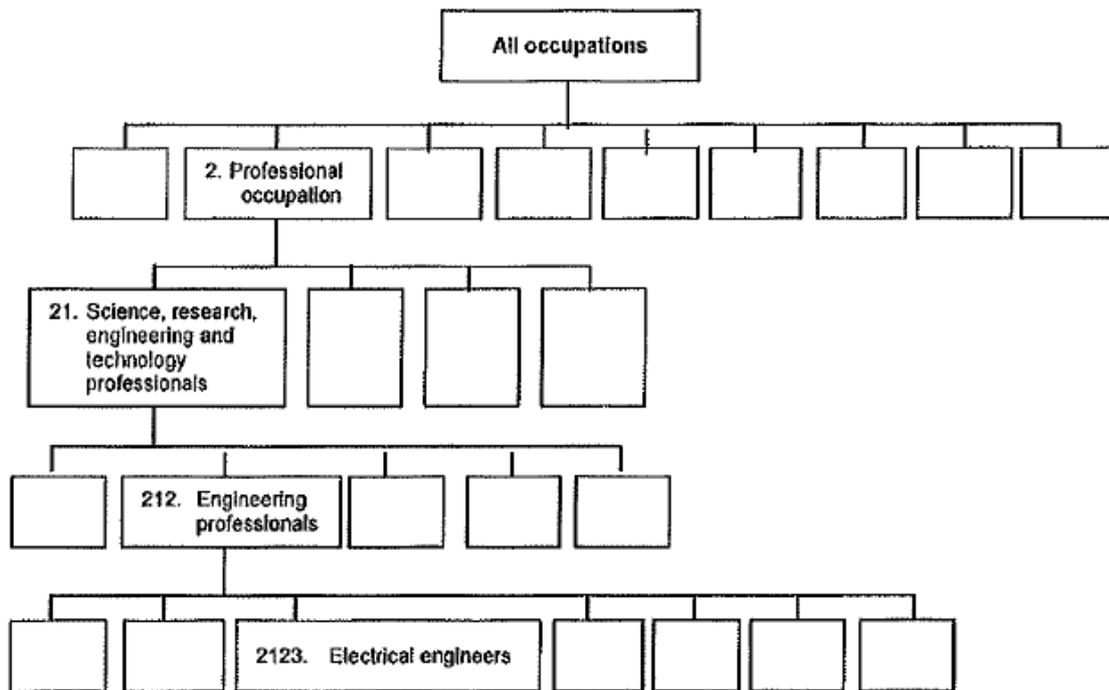
6.23 In assessing this ground of appeal in detail, we consider the evidence from the witness statements provided by NPg and GEMA which focused on the statistical issues arising from GEMA's approach in the Final Determinations and the counter-arguments relating to NPg's alternative proposal. In its response to our provisional determination, NPg stated there had been some mis-characterisation of its appeal. GEMA's quantitative analysis, and therefore our assessment of that analysis, has focused on NPg's proposal to give greater weight to four-digit SOC codes. However, our assessment also considered the broader approach within NPg's Notice of Appeal and is not constrained by an assessment of the merits of four-digit data.

6.24 We note that it is not sufficient for NPg simply to demonstrate the existence of an alternative approach to the calculation of RLCAs. For the appeal to be successful on this ground, NPg must demonstrate that the approach adopted by GEMA was wrong by reference to the prescribed grounds of appeal laid down in the statute and we must be satisfied that there was a better approach. We consider in the following sections whether GEMA was wrong in the light of the specific challenges made by NPg. As part of this analysis, we will consider whether NPg's alternative approach better served GEMA's purposes than that adopted by GEMA.

Potential uses of the ASHE data set

6.25 The analysis of both NPg and GEMA largely relied on the ASHE data set for the period 2008 to 2012. As discussed above, the SOC classification comprises a hierarchical structure of four levels of data in terms of skill levels, which was illustrated in Noble-Nesbitt 1 as follows:

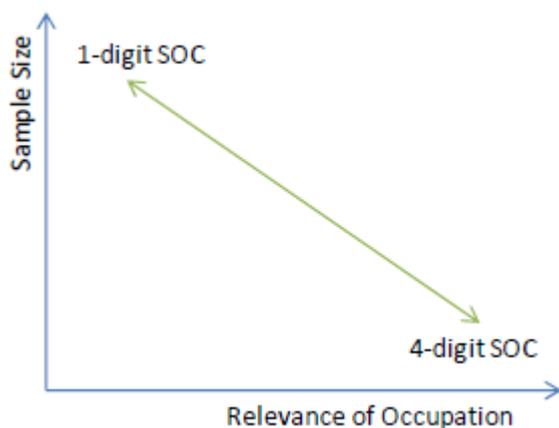
Figure 4: Illustrative chart of SOC hierarchy



Source: NPg - Reproduced from first witness statement of Keith Noble-Nesbitt, p7.

6.26 The ONS does not publish sample sizes for the individual SOC codes. It is uncontested that the higher-digit data sets will have more granularity than the lower. They would likely have greater relevance to the occupations in the DNOs, but will be based on a smaller sample size. Other things being equal, analysis based on smaller sample sizes will be less statistically reliable. This trade-off is illustrated in GEMA’s evidence.

Figure 5: Trade-off with SOC codes



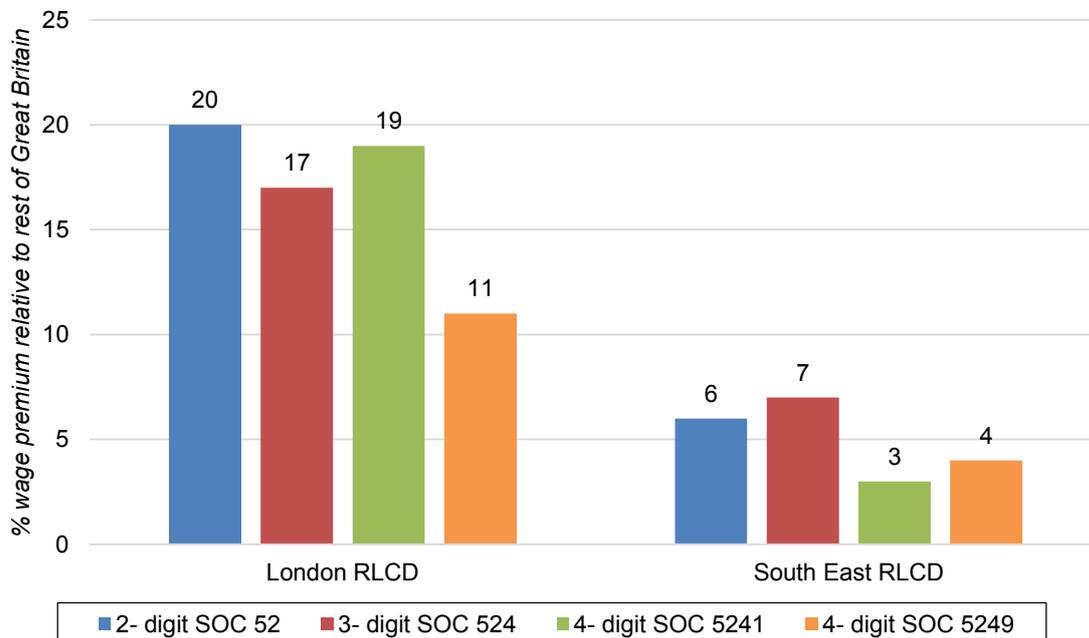
Source: Witness statement of Joel Cook, Figure 1 in paragraph 28.

6.27 NPg’s appeal ground alleged that GEMA was wrong not to take account of the lower degree of relevance of occupation within the two-digit codes. NPg identified that the specific wider data sets used by GEMA led to the inclusion

within GEMA's analysis of many roles not relevant to the DNOs. It referred to examples of occupations such as well-paid Michelin chefs and legal secretaries that were predominantly found in London. The greater weight given to these high-paid staff within the London data would result in higher relative London labour costs than would be observed in regional DNO cost variations, where the roles would be more directly comparable between different regions.

- 6.28 NPg gave some examples to support its conclusion that this integration of such London-specific roles did not just result in a different London cost adjustment, but in practice resulted in a biased assessment of RLCAs.
- 6.29 The first example in the witness statement of Noble-Nesbitt 1 on behalf of NPg related to the SOC code (52) that received the greatest weight (48%) in GEMA's calculations. This related to 'skilled metal, electrical and electronic trades'. The analysis of this that NPg presented included the results of the London and the South East RLCA weightings relative to the rest of Great Britain, as shown in Figure 6 below. These figures need to be considered in comparison to GEMA's estimate of a 19% London and 5% South East labour cost differential as noted in paragraph 6.7.

Figure 6: RLCs calculated using two-digit (GEMA's approach) compared with three- and four-digit for SOC code 52



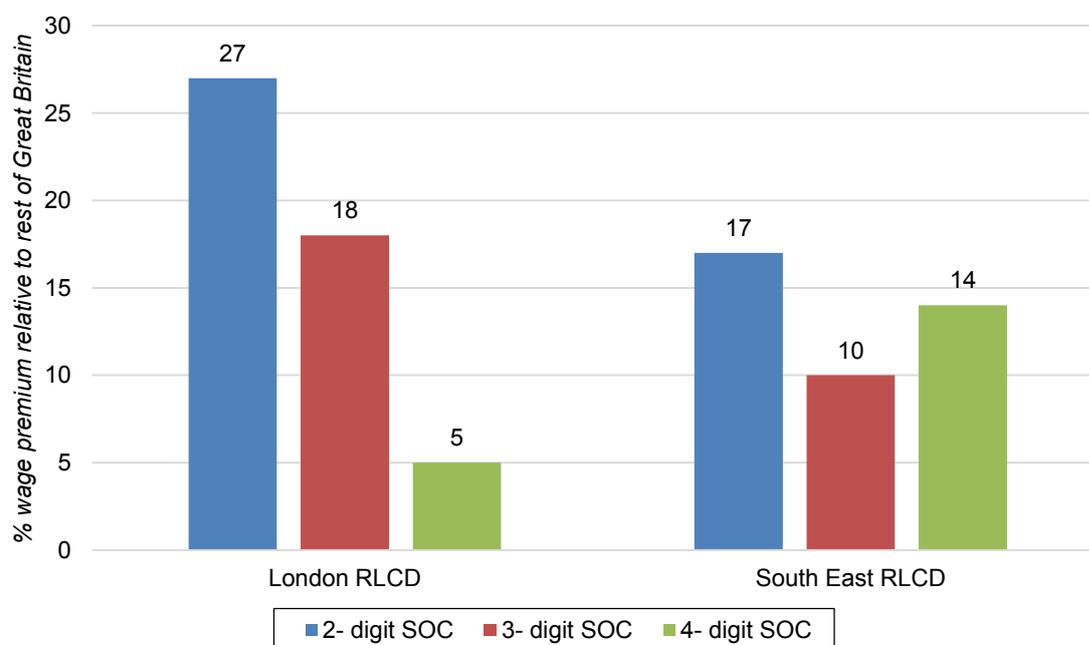
Source: Keith Noble-Nesbitt's first witness statement on behalf of NPg (26 February 2015), Table 2 (and Table 6).

- 6.30 NPg considered that the reason that the premia were higher with the broader data sets (eg two-digit) and generally reduced as more tightly defined codes were assessed (eg four-digit) was because the broader data sets suffered

more from compositional issues. NPg concluded that the four-digit codes therefore were a more accurate reflection of actual labour conditions for DNOs.

6.31 Further examples were provided by NPg. A second example related to SOC code 21 that included electrical engineers. This code received a 16% weighting in GEMA’s calculations. Figure 7 shows the position on calculated RLCDs for London and also for the South East region for the different levels of granularity in the ASHE data set for this SOC code 21. We review GEMA’s assessment of the accuracy of this data for this SOC code 21 in paragraph 6.33 and Figure 8 below. Whilst a similar pattern is observed for London, the data does appear to demonstrate an implausible conclusion for the South East region, which is consistent with GEMA’s concerns about the use of four-digit data.

Figure 7: RLCDs calculated using two-digit (GEMA's approach) compared to three- and four-digit for SOC code 21



Source: Keith Noble-Nesbitt’s first witness statement on behalf of NPg (26 February 2015), Table 7.

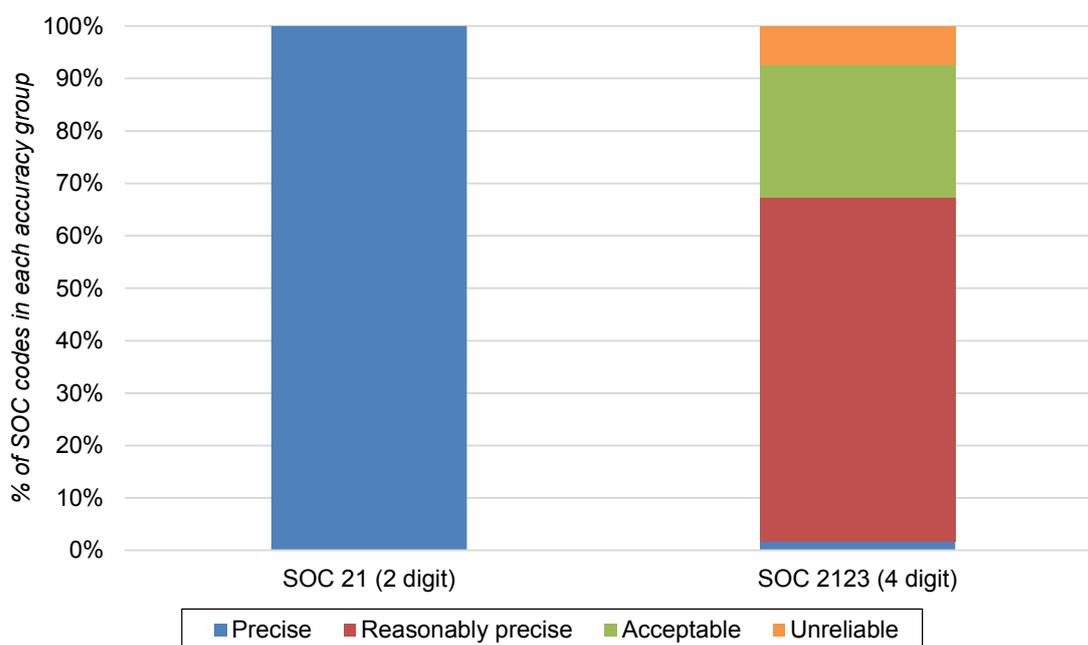
6.32 NPg stated that the data was available to use more granular data that would capture occupations more closely aligned to the DNOs’ workforce. This was not in itself contested. However, in its Response, GEMA stated it was not appropriate to analyse lower levels of granularity since in doing so, new problems would have arisen due to the smaller sample sizes and data variances evident at the four-digit level.

6.33 In support of the better accuracy of two-digit data, GEMA provided analysis from the ONS of the coefficient of variations (cvs) for the SOC codes that NPg

had suggested were relevant. These ‘cv’ estimates are one measure of the statistical accuracy of data. Using these estimates, the ONS categorises SOC data into ‘precise’, ‘reasonably precise’, ‘acceptable’ and ‘unreliable’ data sets. Figure 8 below illustrates the estimates produced by the ONS of the ASHE data for different regions in respect of:

- SOC code 21 (two-digit) – science, research, engineering and technology professionals; compared with
- SOC code 2123 (four-digit) – electrical engineers.

Figure 8: Accuracy example (cv values): code 21 v code 2123



Source: Joel Cook’s witness statement on behalf of GEMA (22 April 2015), Table 2.

6.34 This chart shows that at the two-digit level 100% of the data is assessed as ‘precise’ since this data has a low coefficient of variation. However, with the four-digit data set only a small percentage of the data is ‘precise’ and some falls into in the ‘unreliable’ category due to having high variation. In other words, the supporting analysis to the ONS data shows that this four-digit data is a less reliable statistical measure of relative regional costs for the relevant occupations.

6.35 GEMA provided similar examples relating to the ONS’s accuracy estimates for SOC codes 31 and 52 compared with their four-digit data sets. In each case it showed that the four-digit measure was less statistically robust than the two-digit measure and GEMA argued that too much of NPg’s data was in the unreliable category as defined by ONS.

6.36 NPg disagreed that these were valid reasons for rejecting the use of four-digit data. It provided alternative statistical evidence seeking to demonstrate that the problems could be rectified by averaging (over years and/or different SOC codes). Its conclusion was that GEMA had overplayed the extent of such problems. GEMA argued that averaging of data would not be a robust solution since it would not overcome the underlying issue, that the data was unreliable at this (or any) level. It stated that averaging merely made such data issues less visible, and in some cases was statistically incoherent. At its hearing, GEMA described NPg’s approach as ‘bad statistics’ and ‘statistically wrong’.

6.37 GEMA provided analysis of the volatility of RLCDS over time, again comparing the results from the two-digit approach with the four-digit approach for certain SOC codes referred to NPg’s appeal. An example of this is shown in Figure 9 below, again contrasting SOC code 21 (two-digit) and SOC code 2123 (four-digit).

Figure 9: Volatility example – code 21 v 2123



Source: Joel Cook’s witness statement on behalf of GEMA (22 April 2015), Annex A, Table A1.

6.38 GEMA’s analysis showed significant variances in the year-on-year data for the four-digit codes (2123), shown in purple and red lines, and relative stability for the two-digit codes (21) in both London and also in the South East region, shown in green and blue lines. GEMA provided the CMA with other similar examples relating to the ONS’s accuracy estimates for SOC codes 31 and 52 compared with their four-digit data sets.

6.39 This analysis seems to us valid in questioning the relative superiority of four-digit codes. It is a principle underlying the use of RLCAs that there is a

material underlying differential in labour costs between different regions, which GEMA was trying to measure through the use of ONS data and which would be suitable for use in setting prices for the RIIO-ED1 period. Both parties agreed that this was the case, at least for the London region. However, the data showed that there was no such stable measure of RLCAs for the relevant four-digit codes, and as such this brings into question their use in coming to a view on the scale of any RLCA for the RIIO-ED1 period.

- 6.40 Whilst NPg provided evidence in support of using more granular codes, it did not provide specific evidence that countered GEMA's analysis that there was instability within certain of NPg's preferred codes. For both of GEMA's concerns regarding accuracy and volatility, NPg suggested solutions based on averaging of either SOC codes or averaging over multiple years.
- 6.41 In our view, although there may be circumstances where this could help reduce error, in other circumstances such approaches may merely mask underlying data problems rather than resolve them. It could, for example, involve use of data that the ONS has classified as 'unreliable'. This issue arose in the CC's NIE price determination where the CC noted²⁰⁴ that averaging over a number of years 'help reduce the risks of inaccuracy from a small sample size, but we do not believe that this approach necessarily eliminated those risks.'
- 6.42 In our view, GEMA highlighted legitimate concerns and potential unreliability from using more granular data and this suggests a reasonable degree of caution in basing the RLCAs on the four-digit SOC codes. As part of the overall assessment, although we recognise that NPg identified benefits from using three-digit and/or four-digit codes, we also consider that GEMA was reasonable to take account of the risks arising from lower data accuracy and increased data volatility over time that is associated with more granular data from the ASHE data set.
- 6.43 We note that, in its response to our provisional determination, NPg gave greater weight to the relevance of three-digit codes as an alternative to GEMA's approach than it had in its Notice of Appeal. We note that the arguments around statistical validity would apply though to a more limited extent to three-digit codes. The problems associated with more granular data are particularly pertinent for four-digit codes which were given significant weight in NPg's proposed alternative RLCAs in its Notice of Appeal.

²⁰⁴ CC (26 March 2014), [Northern Ireland Electricity Limited price determination: Final determination](#), paragraph 8.215.

6.44 We did not see compelling evidence that the risk of regulatory error arising from the use of broad two-digit codes exceeded the risk of error associated with more granular codes. Our review of the evidence suggests that both parties identified potential risks associated with the alternative data sources, and NPg did not demonstrate that its preferred indices had advantages over GEMA's approach in terms of reducing the risk of error. We therefore do not agree with NPg that the use of four-digit codes would be more robust than GEMA's approach. We recognise that this was only one of NPg's alternative sources of evidence. We consider the other alternative approaches further below

Compositional bias and choice of comparator organisations

6.45 As discussed above, NPg highlighted potential compositional issues in GEMA's analysis of RLCAs. In this section, we consider aspects of NPg's analysis that were directed at demonstrating that GEMA's approach systematically overstated RLCAs as a result of compositional bias. If correct, this would imply that a lower RLCA would be more accurate.

6.46 In comparing labour rates between regions, differences could arise from either:

(a) different pay levels for similar roles/skills (RLCAs); or

(b) different occupational mixes and/or different types of roles (compositional bias).

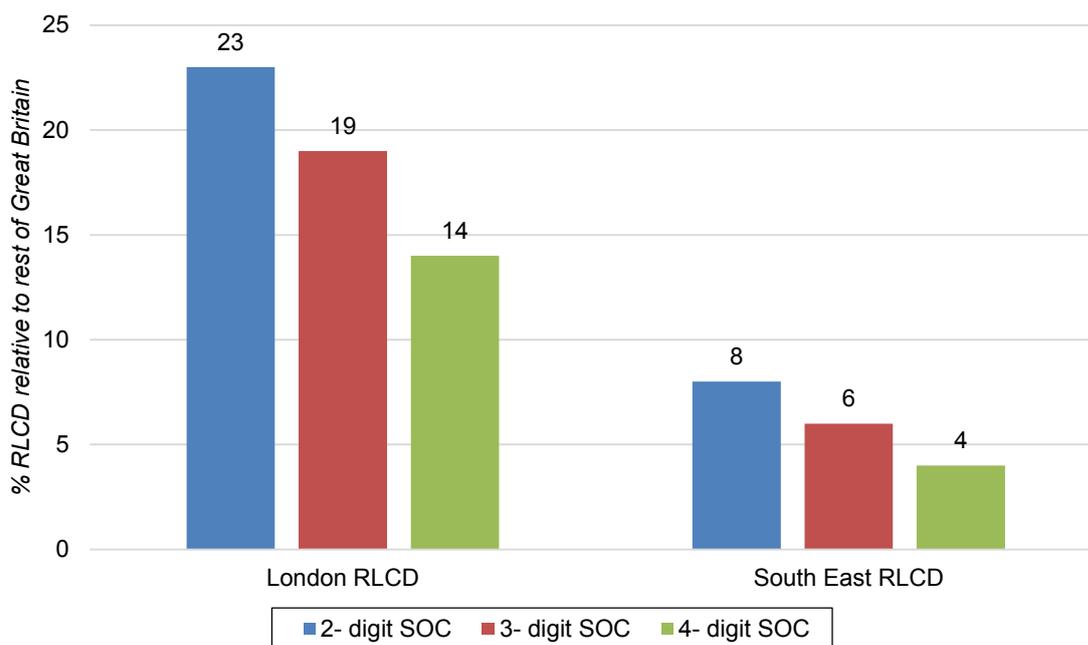
6.47 In the absence of an understanding of the impact of (b) within any measure of relative labour rates, NPg highlighted that any measure of RLCAs was unreliable.

6.48 NPg contended that such compositional bias was far greater at the higher level (eg two-digit), and decreased as more tightly defined occupations were examined (eg three-digit and further with four-digit).

6.49 NPg stated that it provided analysis as part of the consultation process to support the proposition that the compositional bias was worse at the two-digit level than in three- and four-digit data, and that GEMA had failed to take any action to rectify this problem.

6.50 NPg's view was that the compositional issues, that it argued GEMA failed to address, led to 'upwards-biased' RLCDs, meaning the two-digit approach gave a higher London/South East weighting than drilling down to the three- and four-digit codes. It provided the following evidence of this as a summary across all SOC codes.

Figure 10: RLCDs calculated using two-digit (GEMA's approach) compared with three- and four-digit – overall position



Source: Keith Noble-Nesbitt's witness statement on behalf of NPg (26 February 2015), Table 3.

6.51 Figure 10, in NPg's view, demonstrated that less granular data would systematically overestimate RLCDs, and that GEMA therefore overstated RLCDs by relying on such data.

6.52 NPg provided further evidence which supported this assessment of the effect of compositional bias for specific relevant codes, showing the effect of moving within the hierarchy of codes in the data set. Examples provided included:

- SOC category 52 'Skilled metal, electrical and electronic trades';
- SOC category 21 'Science, research, engineering and technology professionals';
- SOC category 31 'Science, engineering and technology associate professionals'; and
- SOC category 41 'Administrative occupations'.

6.53 In each case, the London and South East premia were higher for lower-digit SOC categories. NPg concluded that the bias systematically led to upward premiums for London and the South East under GEMA's approach of using two-digit SOC codes. NPg considered that GEMA had failed to take any action to rectify this problem.

- 6.54 In its Response, GEMA argued that the evidence put forward by NPg was based on selective data analysis; partly anecdotal; and failed to present a rational and compelling case.
- 6.55 For example, GEMA noted that NPg selected 13 four-digit SOC codes for its analysis that it suggested suffered from fewer compositional issues. GEMA noted that these were codes with a lower RLCD than the remaining 21 four-digit SOC codes in the particular group chosen by NPg. GEMA argued that this analysis was selective and would therefore result in biased estimates of RLCAs within the four-digit results. This is summarised in the following table (which is based on NPg’s conclusions).

Table 11: NPg’s estimated RLCAs

	%	
	<i>London</i>	<i>South East</i>
NPg’s estimate using 13 selected ASHE 4-digit SOC codes and an ‘inter-quartile range’	12.9	2.1
NPg’s estimate using all 34 4-digit SOC codes	17.1	3.4

Source: Keith Noble-Nesbitt’s witness statement on behalf of NPg (26 February 2015), extracts from Tables 19 & 20.

- 6.56 The fact that in the table above the complete data set of 34 codes has higher RLCDs for London in particular must mean that the sample of 13 codes that NPg selected had lower RLCDs than average. This is a simple mathematical calculation: the remaining 21 codes not assessed by NPg must have had higher RLCDs than the 17% London value, for the 34-code average to be correct. Without a full explanation of the basis for selecting the 13 codes and compelling evidence that these are less prone to compositional issues, we consider that this type of selective data analysis is of limited use in support of NPg’s case.
- 6.57 Taking NPg’s evidence in the round, we agree NPg has demonstrated that there is a risk of systematic compositional bias in the ASHE data set. The potential for bias is shown in Figure 10 above, the chart showing lower RLCAs for more granular data.
- 6.58 However, it seems to us that this falls short of providing actual evidence of upwards compositional bias in GEMA’s approach. There may be other factors, such as the sample size differences, that lead to different RLCDs arising depending on which digit level of the database is assessed. What NPg did not, in our view, demonstrate was that the lower RLCAs identified within the three- and four-digit SOC codes were more accurate than the higher RLCAs identified by GEMA using two-digit SOC codes. The lower RLCAs identified by NPg may have been linked to the weaker statistical properties of these data sets, and these may have systematically understated RLCAs.

- 6.59 This analysis is primarily based on analysis of four-digit codes. NPg also suggested that GEMA should have given greater weight to three-digit codes. However, we note that the three-digit values in Figure 10 are very different to the remedy that NPg has suggested. NPg suggested RLCAs of 10% for London and 0% for the South East, whereas the three-digit figures are 19% and 6% respectively which are more closely aligned to GEMA's Final Determinations approach based on the two-digit approach.
- 6.60 Furthermore, we agree with GEMA that the analysis put forward by NPg was selective in nature. We did not see clear evidence from NPg as to why the lower RLCAs it identified were a better measure than the implied higher RLCAs it excluded from its sample of four-digit codes.
- 6.61 We therefore conclude that whilst compositional bias is a relevant issue in the calculation of RLCAs, we do not consider that NPg demonstrated that the risk of compositional bias meant that GEMA was wrong in using two-digit codes. We did not see evidence that the other codes proposed by NPg would have been better at addressing the risk of compositional bias.

Alternative data sources

- 6.62 NPg suggested that in the light of the concerns it had raised, this created a need to base the RLCAs on a larger pool of evidence, including data sources other than those derived from the ONS ASHE data set. NPg put forward examples of alternative data sources, such as the Hay Group and the IDS. It also suggested to us that, where a range of premia were identified for London and the South East, the numbers chosen should be at the lower end of such ranges if there was any doubt in the reliability of estimates. This was because of the high bar GEMA had indicated in its consultation documents and that it required evidence to justify any special specific allowance for a DNO.
- 6.63 NPg provided a variety of examples of occupations where it had calculated the RLCDs for London and for the South East.²⁰⁵ In its Response, GEMA disputed the values calculated and also commented that the examples provided by NPg were not relevant to the DNOs' business. The following table shows the different calculations for RLCDs from both parties for three of the example occupations put forward by NPg:

²⁰⁵ In its response to our provisional determination, NPg clarified that its calculation of RLCDs was directly taken from ONS ASHE data.

Table 12: Examples of RLCDs for selected occupations provided by GEMA and NPg

	%			
	<i>London region</i>		<i>South East region</i>	
	<i>NPg estimate</i>	<i>GEMA estimate</i>	<i>NPg estimate</i>	<i>GEMA estimate</i>
Nurses	13.9	15–20	0.3	5
Police officers	16.0	17–23	4.3	N/A
Teachers	8.7	13–19	–2.0	4

Source: Keith Noble-Nesbitt’s first witness statement, Table 20 and Joel Cook’s witness statement, Table C.1.

6.64 We consider that Table 12 demonstrates, in part, the difficulty in applying such evidence from individual professions. The examples potentially suffer from selection bias and differences in the approach taken to calculate the values. More generally, it is not obvious that these professions are a reliable comparator for regional DNOs’ labour costs.

6.65 GEMA stated that there was no need to consider using alternative sources of data, since its approach to RLCAs (based on the two-digit codes from the ONS ASHE data set) was not wrong. Also, GEMA cast doubt on the robustness of the reliability and representative nature of the alternatives proposed, noting that the examples chosen by NPg could be carefully selected to support its position.

6.66 As with NPg’s appeal on ground 2 above (RPEs), we conclude that a more limited data source (here from Hay’s client database) is not in principle as robust as that from independent sources drawn from the whole economy, such as the ONS’s ASHE data set. GEMA’s approach of using ASHE was also consistent with regulatory precedent and seems to us to have been accepted as being good regulatory practice in other contexts. We consider that GEMA was not wrong in using the ASHE data set, and was not required to use alternative (more limited) data sources for calculating its RLCAs to normalise totex levels for comparative benchmarking.

Procedural errors

6.67 NPg commented²⁰⁶ that GEMA had failed to explain why it used the two-digit SOC codes. It suggested that GEMA’s Final Determinations commentary was insufficient, since GEMA’s document only referenced the general principle of using the ONS ASHE data, rather than NPg’s specific challenge of which level of SOC code to adopt (hence how tight the occupational categories to adopt).

6.68 We are not persuaded by the suggestions made by NPg that GEMA’s process for consultation on this issue and that the documentation produced by GEMA

²⁰⁶ NPg’s Notice of Appeal, paragraphs 8.25 & 8.26.

did not reflect the representations it received on this matter. We accept GEMA's position that the level of consultation and written explanation of its approach was proportionate to this specific part of what is, overall, a complex price control process. We note that GEMA specifically met NPg to consider its concerns and was not persuaded by NPg's representations.

- 6.69 NPg has proposed that GEMA should have used a wider range of data sources, which it describes as 'triangulation'. Triangulation is a reasonable approach to combining data of similar quality. However, triangulation of robust data from reputable sources with data that may be less comprehensive or have statistical weaknesses does not in itself justify the use of that data. This concern applies, in our view, to the ONS ASHE data set at four-digit levels and to the Hay Group data which is external commercial data specific to client databases rather than data fully representative of market conditions.
- 6.70 In particular, NPg's case that GEMA was wrong would require GEMA to give significant weight to alternative indices containing data which our analysis suggests may not be suitable for the purpose of identifying RLCAs.
- 6.71 In its response to our provisional determination, NPg suggested that an unwelcome regulatory precedent would be established if the CMA did not find that GEMA was wrong in its approach to determining the RLCAs. This was based on NPg's contention that less than robust data sources had been used by GEMA. However, we find that NPg did not demonstrate any evidence of regulatory error. NPg failed to show that the approach adopted by GEMA was wrong. We do not agree that this implies any endorsement by the CMA of a poor regulatory process. Equally, our review does not imply that the two-digit approach would always be the approach to adopt in future regulatory reviews. This appeal focused on the specific circumstances of RIIO-ED1 and the evidence provided by the parties in respect of GEMA's approach to that review.

Overall assessment of NPg's ground 3

- 6.72 NPg's ground 3 was that GEMA was wrong to use two-digit ONS ASHE data in assessing RLCAs, as it could have used data that was more robust from a range of alternative sources that showed a lower premium for London and Great Britain. NPg's case included reference to ONS statements that there were risks in using the data it provides. NPg did not seek to demonstrate that any one of these measures was the 'best' measure of RLCAs, only that GEMA was wrong because these other measures, taken in the round, showed that GEMA's choice of indices resulted in RLCAs that were too high.

- 6.73 We reviewed the alternative sources identified by NPg. Our analysis does not suggest that these other data sources are more robust. NPg's Notice of Appeal suggested, for example, that four-digit ASHE data would have been more robust than the two-digit data provided by GEMA. However, analysis of the four-digit ASHE data demonstrates that it is also at risk of error and is unstable, which suggests it may not be reliable for estimating RLCAs over RIIO-ED1. We are not persuaded that it is more robust than GEMA's data.
- 6.74 Using three-digit data would not support a change in RLCAs to the level proposed by NPg in its Notice of Appeal and Reply. NPg indicated that, if we do not accept its proposal but accept the benefits of some alternative data sources, then a smaller adjustment would still be appropriate. However, we do not consider that there is sufficiently strong evidence from these alternative sources to justify requiring GEMA to depart from the approach that it chose to adopt.
- 6.75 We also considered whether the fact that there was a range of approaches that indicated lower RLCAs, demonstrates that GEMA was wrong. We find that NPg, in showing that other approaches could plausibly have been taken, did not provide any compelling evidence that those approaches would have improved the accuracy of GEMA's measurement of RLCAs for DNOs. GEMA itself used a range of ONS data from relevant occupations. NPg's analysis selected certain occupations, some of which we do not consider to be as relevant as those applied by GEMA. There is a risk of selection bias in NPg's choice of indices. This is a risk in both the use of a different choice of indices from the ONS data set and NPg's use of external data, for example, from organisations with national pay settlements.

Conclusion on appeal ground 3

- 6.76 NPg highlighted some risks associated with GEMA's approach, including its reliance on two-digit data to calculate RLCAs. Nevertheless, GEMA plainly needed to make some assumptions about this given the agreed position that RLCDs exist, at least in London and the South East. Against that background, we are not satisfied that any of the alternative approaches proposed by NPg are better options nor that GEMA's use of two-digit data was wrong.
- 6.77 Given this, we determine that NPg did not demonstrate that GEMA's approach was wrong by reference to any of the grounds of appeal advanced by NPg, and we therefore dismiss NPg's appeal ground 3.

7. Determination on costs

The CMA's costs

- 7.1 When determining an appeal, we must make an order requiring the payment of the costs incurred by the CMA in connection with that appeal.²⁰⁷
- 7.2 Given that NPg's appeal is partially allowed, we are required to make an order that the CMA's costs should be paid by one or more parties, in such proportions as we consider appropriate in all the circumstances.²⁰⁸
- 7.3 In our provisional determination, we indicated that if our provisional view on the substance of NPg's appeal were maintained at final determination, we would be minded to make an order apportioning responsibility for the payment of the CMA's costs between the parties in equal shares.
- 7.4 In light of our final determination, which maintains the substantive conclusions on this appeal that were set out in the provisional determination, we consider that a costs order of this form remains appropriate in all the circumstances. In reaching that decision, we had regard to the CC's decision on costs in the *E.ON* case, where the CC held that, in making a split order in respect of its own costs, it should seek to reflect the substance of the appeal, and the time and effort expended by the CC in connection with the substance of the appeal.²⁰⁹ Although the statutory provisions on costs which the CC was applying in *E.ON* were somewhat different from those that we must apply in the present context,²¹⁰ we find the *E.ON* decision to be of assistance as regards our approach in respect of payment of the CMA's costs.
- 7.5 We consider that NPg's first ground of appeal relating to SGBs (in respect of which the appeal was allowed) occupied more time than either of the other two grounds (in respect of which the appeal was dismissed). We consider that ground 1 occupied roughly half the time expended by the CMA in dealing with this appeal and that a 50/50 costs order appropriately reflects the substance of this appeal.
- 7.6 GEMA agreed that a 50/50 split in respect of the CMA's costs was appropriate. NPg, however, contended that an order requiring GEMA to pay 67% of the CMA's costs, with NPg paying the remainder, would better reflect the proportion of time spent on the issue of SGBs in the course of this appeal. It

²⁰⁷ EA89, Schedule 5A, paragraph 12(1).

²⁰⁸ EA89, Schedule 5A, paragraph 12(2)(c).

²⁰⁹ *E.ON* decision on costs, paragraph 9.

²¹⁰ In particular, the statutory provisions on costs that were under consideration in *E.ON* did not expressly provide for the possibility of a split order on costs, in contrast to the costs provisions in Schedule 5A to EA89. However, the CC considered that, in certain circumstances, a split order could nonetheless be made.

supported that argument by reference, in particular, to an analysis of the relative page count devoted to the various grounds of appeal in the written pleadings and in the hearing transcripts. However, this approach does not take into account (for example) the substantial time spent by the CMA in its internal consideration of the three grounds of appeal. We remain of the view that a 50/50 split appropriately reflects the substance of this appeal and, in particular, the time actually spent by the CMA in considering the different grounds.

- 7.7 We therefore make an order that NPg and GEMA will each pay 50% of the costs incurred by the CMA in connection with this appeal.

Inter partes costs

- 7.8 In contrast to the position in respect of the CMA's own costs, we are not required by the statute to make an order in respect of inter partes costs. However, we have a discretion to make such an order as we think fit for requiring one party to the appeal to make payments to another party in respect of costs reasonably incurred by that other party.²¹¹
- 7.9 We drew the parties' attention to this discretion in our provisional determination, and invited any party seeking such an order to make an application supported by a statement of costs, in accordance with paragraph 5.6 of the Guidance. While GEMA contended that, should the provisional determination remain substantially unaltered at final determination, there should be no order as to costs given the parties' relative success on the appeal, NPg sought an order that GEMA should pay all of NPg's reasonably incurred costs. It did so on the basis that it should be regarded as the 'successful' party in the appeal as a whole, and that there was no reason for departing from the ordinary rule that the successful party should recover its (reasonably incurred) costs in full. NPg also contended that the costs claimed were proportionate. We consider this below, but note, at the outset, that the total costs claimed by NPg were in excess of £2.6 million, almost five times greater than GEMA's costs of approximately £570,000. Plainly, we would have required very compelling justification that costs in this amount were reasonably incurred and proportionate.
- 7.10 In addition, NPg claimed that a costs award in NPg's favour would strongly 'incentivise' GEMA to be rigorous and transparent in the future.

²¹¹ EA89, Schedule 5A, paragraph 12(3).

- 7.11 We note that while GEMA suggested that there should be no order as to costs, we understand this to be a reflection of the fact that it successfully defended two of the three grounds of appeal, together with its acceptance that those two grounds of appeal involved roughly the same amount of time and expense as the ground of appeal relating to SGBs on which NPg was successful. In other words, GEMA's position was that any costs award in either party's favour should simply be 'netted off' to reflect the parties' relative success/failure. In substance, then, we understand GEMA to be seeking an order that reflects the fact that NPg should be liable for GEMA's costs in respect of ground 2 and 3, and that GEMA should be liable for NPg's costs in respect of ground 1.
- 7.12 In considering whether and, if so, what order to make as to the payment of inter partes costs, our starting point is the Rules which provide, at Rule 19.3, that when deciding what order to make, the CMA will have regard to all the circumstances, including (i) the conduct of the parties, (ii) whether a party has succeeded in whole or in part, and (iii) the proportionality of the costs claimed.
- 7.13 Further, the Guidance explains that the CMA will normally order the unsuccessful party to pay the costs of the successful party, but that it may make a different order, by reference to the specific factors in Rule 19.3.
- 7.14 In the present case, we do not consider that it is helpful to think in terms of one party being successful or unsuccessful by reference to the appeal as a whole. NPg raised three discrete grounds of appeal, each raising distinct issues, and we therefore consider that it is appropriate to approach the assessment of inter partes costs on an issue by issue basis, considering (a) which party was 'successful' in respect of a given ground and then (b) whether it is appropriate in all the circumstances for the unsuccessful party in respect of that ground to pay the successful party's costs, having regard to the factors in Rule 19.3.
- 7.15 Accordingly, we reject NPg's submission that it should be regarded as the successful party in respect of the appeal as a whole, and that it should recover all of its reasonably incurred costs from GEMA. The fact that NPg acted 'reasonably' in relation to the grounds of appeal on which it did not succeed seems to us to be beside the point. The fact is that the grounds of appeal raised discrete issues, and the specific circumstances of this appeal justify an issue-by-issue approach.
- 7.16 That is not to say that we consider we are bound to make an 'issues-based' costs order. Rather, we consider that it is preferable, where possible, to make a single adjusted costs order. However, in making such an order, the starting

point is that it should reflect the parties' relative success by reference to the individual grounds of appeal.

7.17 In this appeal, we consider that it is right to regard GEMA as the 'successful' party in respect of two of NPg's three grounds of appeal, and that any inter partes costs order should reflect this fact. As to the factors in Rule 19.3 which might, in principle, justify a departure from that starting point:

- (a) We do not consider that there were any issues relating to GEMA's conduct which would justify a departure from that starting point. Nor did NPg suggest otherwise.
- (b) We do not think that GEMA's success in respect of grounds 2 and 3 can be described as partial only (and, again, NPg did not suggest otherwise). NPg's appeal on those grounds was dismissed in its entirety. Accordingly, we do not accord this factor any significant weight in our consideration of inter partes costs.
- (c) As to the question of the proportionality of the costs claimed by GEMA, we note that GEMA's schedule of costs specifies a total figure of £571,304.38 for the costs incurred by GEMA in connection with NPg's appeal. Given the potentially significant implications of NPg's appeal for GEMA's decision, and, in particular, the potential effect on the overall level of the revenue restrictions which GEMA has imposed on NPg if NPg's appeal were to succeed, we do not consider that this sum is disproportionate.

7.18 We are not persuaded by NPg's argument that a costs award in NPg's favour in respect of all three grounds of appeal would incentivise GEMA to be more rigorous and transparent in future. To the extent that such incentive effects are a relevant consideration, they are amply covered by the fact that our costs order will reflect the fact that NPg's appeal was successful in relation to SGBs (see below). Requiring GEMA to pay NPg's costs in respect of the two discrete grounds in respect of which NPg's appeal was dismissed is not, in our view, a just result.

7.19 It follows that our inter partes costs order should reflect the fact that GEMA succeeded on two of three grounds raised in NPg's appeal. However, in the light of the recognised difficulties in making an issues-based costs order, and the fact that, in our view, grounds 2 and 3 (taken together) accounted for approximately 50% of the substance of the appeals, we consider that a just order, in all the circumstances, is for NPg to pay 50% of GEMA's reasonably incurred costs.

- 7.20 However, our order needs also to reflect the fact that NPg was the successful party in respect of the first ground of appeal relating to SGBs. In line with the approach set out above, we consider that it is appropriate to make an order which reflects GEMA's liability for 50% of NPg's reasonably incurred costs, given our conclusion above that the SGB ground accounted for roughly 50% of the substance of the appeal. In particular, it is plainly correct to regard NPg as the successful party in respect of the SGBs ground. Nor, in our view, do any of the factors in Rule 19.3 of the Rules affect that conclusion.
- 7.21 The net result is that our order should reflect the fact that NPg should be responsible for 50% of GEMA's reasonably incurred costs, and vice versa. It does not, however, automatically follow that there should be no order as to costs as GEMA contends. This would only be the case if the parties had claimed the same total costs. However, in fact, there is a very large disparity between the total costs figures in the schedules provided by the parties, with NPg's total costs approximately five times greater than GEMA's.
- 7.22 Considering, first, GEMA's schedule of costs, NPg advanced some broad criticisms of the 'high level' nature of the schedule which GEMA had submitted. However, we do not consider that these criticisms are sufficient for us to conclude that GEMA's costs were not reasonably incurred. Taking matters in the round, we consider that incurring the sum of approximately £0.5 million in connection with this complex appeal, which raised three discrete issues and involved substantial paperwork and attendance at a number of hearings, was not unreasonable (particularly in circumstances where NPg itself has expended many times that amount in connection with the same appeal).
- 7.23 Turning to NPg's costs, we note that while both parties engaged external solicitors, multiple counsel, and expert economists, there are a number of respects in which the costs claimed by NPg go significantly beyond what we might reasonably have expected when compared with GEMA's schedule of costs. By way of example:
- (a) The total sum incurred in respect of counsel's fees by NPg is approximately £410,000, as compared with around £130,000 for GEMA's counsel.
 - (b) The amount claimed by NPg in respect of Slaughter and May's fees amounts to over £1.38 million, compared with a combined total of just over £340,000 claimed by GEMA in respect of both in-house and external legal fees. GEMA also engaged a City law firm, Hogan Lovells, to assist in the appeal. The hourly rates claimed by NPg in respect of its external solicitors are, however, very significantly greater than those claimed in

respect of their equivalents at Hogan Lovells. For instance, the hourly rates claimed by NPg in respect of two 'mid-level associates' are substantially in excess of those claimed by GEMA in respect of the two Hogan Lovells partners.

- (c) The sum claimed by NPg in respect of the services of Frontier Economics (£797,400) is over eight times greater than that claimed by GEMA for the services of its experts (£96,470).

7.24 GEMA also identified a number of other issues with the costs schedule served by NPg, for instance substantial sums incurred by Slaughter and May in respect of 'finalising documents' in February 2015, notwithstanding that, by that time, the substantial drafting of NPg's Notice of Appeal and supporting witness statements appeared to have been complete. In addition, NPg claimed for sums in respect of the period prior to the publication of GEMA's final decision. As noted in the Guidance,²¹² the CMA will not normally allow any amount in respect of costs incurred before GEMA first published its decision. We see no reason to depart from that position in this case, although we accept that the costs in question represent a relatively small category of costs in the context of the appeal as a whole.

7.25 NPg raised a number of arguments seeking to explain why it was neither possible nor appropriate to compare NPg's and GEMA's costs directly. We do not find those arguments persuasive:

- (a) First, NPg contended that GEMA would be expected to spend less time on the appeal than NPg, given that NPg was required to prepare and present a case, while GEMA was responding to tightly defined grounds which were narrow in scope. In principle, we do not see why preparing grounds of appeal necessarily requires more time and expense than responding to them. If, and to the extent that NPg was relying on costs incurred in respect of its consideration of other potential grounds of appeal which were not ultimately pursued, we do not consider that such costs should be recoverable as costs reasonably incurred in connection with the appeal that was actually brought.
- (b) Second, NPg contended that GEMA's costs were incurred over a shorter time frame, since GEMA would only have begun considering the appeal after it was filed on 2 March 2015. As we said above, however, we do not consider that costs incurred by NPg prior to the issuing of the Decision in February 2015 should be recoverable, in accordance with the position in

²¹² [The Guidance](#), paragraph 5.4.

the Guidance. Further, we consider that NPg's submission overlooked the fact that the costs incurred in respect of preparing its Notice of Appeal after the Decision was made can be expected to have been broadly equivalent to those incurred by GEMA in preparing its Response, which traversed the same issues. While GEMA was doing this, the workload on NPg was comparatively much lighter as can be seen in the cost schedules for NPg in March and April 2015. In the light of these considerations, we consider that it is reasonable to expect the parties to have incurred broadly equivalent costs in respect of the appeal, notwithstanding that relatively greater or lesser costs burdens will have fallen on the parties at different times.

(c) Third, NPg referred to the 'discount' available to GEMA in terms of fees in the light of its position as a public body. We do not consider that this factor is determinative. While the rates which NPg agreed with its external advisers were, of course, a matter for NPg, we are required to consider whether those rates were reasonably incurred in the context of this appeal. Considering those rates in isolation, and irrespective of any question of any public sector discount, we do not regard those rates as reasonable for the purposes of an inter partes costs award. We consider that it would have been reasonable to expect NPg to incur legal costs at the rates claimed by GEMA, which are still substantial, irrespective of any discount. We note that a similar quality and quantity of legal advisors was engaged by both parties.

7.26 Further, in the BGT appeal, we stated that it would have been reasonable for the parties to have incurred a similar level of costs. Indeed, in that appeal, the parties' costs were broadly at the same level. In the CMA's view, there is no reason why, as a matter of principle, this should not have been the case in this appeal

7.27 In seeking to arrive at an approach which does justice in all the circumstances of this case, we have reached the view that it would have been reasonable for NPg to have incurred the same level of costs in connection with this appeal as those incurred by GEMA itself. Essentially, this amounts to a finding that the costs claimed by NPg should be discounted by approximately 80%. We appreciate that this is a substantial reduction, but we consider it is a fair one having regard to the matters set out above. We note, at this juncture that the CMA cannot sensibly be expected to carry out the level of detailed costs assessment that would usually be carried out in court proceedings. Rather, we have attempted to reach a fair and just outcome having regard to all the circumstances of the case, in the context of the specific statutory regime under which we are asked to exercise our discretion to make an inter partes order.

- 7.28 We note that there was very likely to have been some duplication of resources given the number of internal and external lawyers, and experts, engaged by both sides. However, so far as we are able to ascertain from the costs schedules provided, we are unable to say that this factor was more significant in relation to either of the two parties. In the circumstances we regard this as a neutral factor.
- 7.29 The net result is that we regard it is appropriate and just in all the circumstances to make no order as to costs. This reflects our conclusion that each party has succeeded in respect of 50% of the appeal, together with our view that the amount of costs incurred by NPg in excess of those incurred by GEMA itself should be regarded as not reasonably incurred.

Glossary

Asset replacement	An activity undertaken by the DNOs to remove existing assets and install a new asset. The driver for this replacement may be due to poor asset condition, obsolescence or environmental or safety liabilities. The principal assets replaced as part of a replacement project are captured as primary assets. Where associated assets are also replaced to facilitate the primary asset replacement, these are counted as consequential assets.
The Authority/ Ofgem/GEMA	Ofgem is the Office of Gas and Electricity Markets, which supports the Gas and Electricity Markets Authority (GEMA), the body established by section 1 of the Utilities Act 2000 to regulate the gas and electricity markets in Great Britain.
Base revenue	The core amount of money that a network company can earn on its regulated business in order to recover the efficient costs of carrying out its activities. Base revenue includes allowances for operating costs, the return of capital (depreciation), return on capital, tax, pension deficit repair and any adjustments to previous allowances.
Benchmarking	The process used to compare a company's performance (eg its costs) to that of best practice or to average levels within the sector.
BGT	British Gas Trading Limited.
BMCS	Broad measure of customer satisfaction. A composite incentive consisting of a customer satisfaction survey, a complaints metric and stakeholder engagement. It was introduced for DPCR5 and is designed to drive improvements in the quality of the overall customer experience by capturing and measuring customers' experiences of contact with their DNO across the range of services and activities the DNOs provide.
Capex	Capital expenditure. Expenditure on investment in long-lived assets. For more information on what this includes, see Ofgem's RIG's Glossary .

CC	Competition Commission. (From April 2014, the functions of the CC were taken over by the CMA .)
CI	Customer supply interruptions per year.
CMA	Competition and Markets Authority.
CML	Duration of interruptions to supply per year.
Connections	Within the reporting for DPCR5 , the term connection refers to the provision of exit points. All provisions of new exit points or upgrades of existing exit points should be referred to as connections within the annual reporting for connection.
Cost of debt	The effective interest rate that a company pays on its current debt. Ofgem calculates the cost of debt on a pre-tax basis.
Cost of equity	The rate of return on investment that is required by a company's shareholders. The return consists both of dividend and capital gains (eg increases in the share price). Ofgem calculates the cost of equity on a post-tax basis.
Credit rating	An evaluation of a potential borrower's ability to repay debt. Credit ratings are calculated from financial history and current assets and liabilities. There are three major credit rating agencies (Standard & Poor's, Fitch and Moody's), which use broadly similar credit rating scales, with D being the lowest rating (highest risk) and AAA being the highest rating (negligible risk). The companies regulated by Ofgem typically have a credit rating of BBB, BBB+, A-or A.
DECC	Department of Energy and Climate Change.
Depreciation	Depreciation is a measure of the consumption, use or wearing out of an asset over the period of its economic life.
Distribution network	The distribution system is a network of wires, transporting electricity from the transmission system or distribution connected generation to domestic, commercial and industrial electricity consumers. The electricity distribution network includes all parts of the network from 132kV down to 230V in England and Wales. In Scotland 132kV is considered to be a part of transmission rather than distribution.

DNOs	Distribution Network Operators. Holders of electricity distribution licences. Licences are granted for specified geographical areas. Currently there are 14 DNOs owned by six different groups in Great Britain.
DPCR5	Distribution price control review 5. The price control review for the electricity distribution network operators covering the period from 1 April 2010 to 31 March 2015.
Draft Determinations	Consultation on the proposed DNO settlements for the price control period. In previous price control reviews, Draft Determinations were called Initial Proposals.
EHV	Extra high voltage.
EMID	Western Power Distribution (East Midlands) plc.
ENWL	Electricity North West Limited.
EO	Energy Ombudsman/Ombudsman service. Ombudsman Services provides an independent dispute resolution service for the communications, energy, property and copyright licencing sectors.
EPN	UK Power Networks (Eastern Power Networks) plc.
Equity risk premium	A measure of the expected return, on top of the risk-free rate, that an investor would expect for a portfolio of risk-bearing assets. This captures the non-diversifiable risk that is inherent to the market. Sometimes also referred to as the 'market risk premium'.
Fault	Any incident arising on the licensee's distribution system, where statutory notification has not been given to all customers affected at least 48 hours before the commencement of the earliest interruption (or such notice period of less than 48 hours where this has been agreed with the customer(s) involved).
Fault-level reinforcement	Work carried out on the existing network where the prime objective is to alleviate fault-level issues associated with switchgear or other equipment.

Fault rate	A fault rate is the incidence per unit of unplanned incidents for a specific category of distribution assets. Fault rates form part of the DPCR5 network output measures.
Final Determinations	Set out the final DNO settlements for the price control period. In previous price control reviews, Final Determinations were called Final Proposals.
Financeability	Financial models are used to determine whether the regulated energy network is capable of financing its necessary activities and earning a return on its RAV under the proposed price control. This financeability is assessed using a range of different financial ratios.
Financial structure	The way in which a company finances its assets, for example through short-term borrowings, long-term debt and shareholder equity.
Gearing	A ratio measuring the extent to which a company is financed through debt borrowing. Ofgem calculates gearing as the percentage of net debt relative to the RAV .
General reinforcement (EHV & 132kV N-2)	Work carried out on the network required to maintain or restore compliance with ER P2/6 or avert future non-compliance for second circuit outages (a fault outage following an arranged outage).
General reinforcement (EHV & 132kV Other)	<p>Work carried out on the network which falls outside of General Reinforcement (EHV and 132kV N-1) and General Reinforcement (EHV and 132kV N-2) such as:</p> <ul style="list-style-type: none"> • reinforcement to correct potential voltage non-compliance; and • reinforcement to correct issues at a lower voltage where it is the most efficient and economic solution. <p>It excludes work associated with high impact, low probability expenditure.</p>
GHG	Greenhouse gas. A collection of gases which absorb infrared radiation and trap its heat in the atmosphere.
HV	High voltage. Voltages over 1kV up to, but not including, 22kV.

HV network	The DNO network that operates at all voltages above 1kV up to and including 20kV.
IIS	Interruptions Incentive Scheme: a scheme offering incentives for the DNOs to improve the number and duration of customer supply interruptions
Incentive rate (efficiency)	The percentage of underspends/overspends against expenditure allowed at the price control review that is kept by the company responsible. The remaining savings/losses are passed through to consumers.
Indexation	The adjustment of an economic variable so that the variable rises or falls in accordance with the rate of inflation.
IQI	The Information Quality Incentive is used to set the strength of the upfront efficiency incentives each company faces according to differences between its forecast and Ofgem's assessment of its (efficient) expenditure requirements. The aim of the tool is to encourage companies to submit more accurate expenditure forecasts to Ofgem .
IT&T	IT and Telecoms. The purchase, development, installation, and maintenance of non-operational computer and telecommunications systems and applications.
LCN fund	Low carbon networks fund. A mechanism introduced under the fifth distribution price control review to encourage the DNOs to use the ED1 price control period to prepare for the role they will have to play as Great Britain moves to a low carbon economy. The fund has £500 million available for DNOs and partners to innovate and trial new technologies, commercial arrangements and ways of operating their networks.
Low carbon economy	An economy which has a minimal output of greenhouse gas emissions.
LPN	UK Power Networks (London Power Networks) plc.
LV	Low voltage. This refers to voltages up to, but not including, 1kV.
NOCs	Network operating costs. Collectively includes the activities of:

- trouble call
- atypicals – severe weather one-in-20 events
- inspections and maintenance
- tree cutting
- NOCs Other

NPg	Northern Powergrid Group. Comprising NPgN and NPgY .
NPgN	Northern Powergrid (Northeast) Limited.
NPgY	Northern Powergrid (Yorkshire) plc.
ONS	Office for National Statistics.
Opex	Operating expenditure. The costs of the day-to-day operation of the network such as staff costs, repairs and maintenance expenditures, and overheads.
Outputs	Output information is to be used to assess network company performance against the outcomes within a control period. This information may be both qualitative and quantitative in nature.
Price control (control)	The control developed by the regulator to set targets and allowed revenues for network companies.
QoS costs	Quality of service costs. Costs where the prime purpose is to improve performance against the IIS targets or to improve the overall fault rate per km of the distribution network.
RAV	Regulatory asset value. The value ascribed by Ofgem to the capital employed in the licensee's regulated distribution business (the 'regulated asset base'). The RAV is calculated by summing an estimate of the initial market value of each licensee's regulated asset base at privatisation and all subsequent allowed additions to it at historical cost, and deducting annual depreciation amounts calculated in accordance with established regulatory methods. The RAV is indexed to RPI in order to allow for the effects of inflation on the licensee's capital stock.

RIIO	Revenue = Incentives + Innovation + Outputs. Ofgem's new regulatory framework, stemming from the conclusions of the RPI-X@20 project. It builds on the previous RPI-X regime, but better meets the investment and innovation challenge by placing much more emphasis on incentives to drive the innovation needed to deliver a sustainable energy network at value for money to existing and future consumers.
RIIO-ED1	The price control review for the electricity distribution network operators, following DPCR5 . This price control period is from 1 April 2015 to 31 March 2023.
RIIO-GD1	The price control review for the gas distribution network operators. This price control is from 1 April 2013 to 31 March 2021.
RIIO-T1	The price control review for the electricity and gas transmission network operators. This price control is from 1 April 2013 to 31 March 2021.
RLCAs	Regional Labour Cost Adjustments – undertaken to normalise DNO totex data prior to benchmarking.
RLCDs	Regional labour cost differences.
RPE	Real price effects. Expected changes in input prices, eg wages, relative to the RPI .
RPI	Retail prices index. The RPI is an aggregate measure of changes in the cost of living in the UK. It differs from the Consumer Prices Index (CPI) in that it measures changes in housing costs and mortgage interest repayments, whereas the CPI does not, they are calculated using different formulae and have a number of other more subtle differences.
RPI-X	The form of price control currently applied to network monopolies. Each company is given a revenue allowance in the first year of each control period. The price control then specifies that in each subsequent year the allowance will reduce by 'X' per cent in real terms.
RPI-X@20	Ofgem's comprehensive review of the regulation of 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.

SGBs	Smart grid benefits – the reduced/avoided costs arising from the introduction of smart grids.
Smart grid	An electricity network that can intelligently integrate the actions of all the users connected to it – generators, consumers and those that do both – in order to efficiently deliver sustainable, economic and secure electricity supplies.
SPD	SPEN Energy Networks (Distribution) Limited.
SPEN	SPEN Energy Networks. Comprising SPD and SPMW .
SPMW	SPEN Energy Networks (Manweb) plc.
SPN	UK Power Networks (South East Power Networks) plc.
SSEH	Scottish and Southern Energy Power Distribution plc: Scottish Hydro Electric Power Distribution plc.
SSEPD	Scottish and Southern Energy Power Distribution. Comprising SSEH and SSES .
SSES	Scottish and Southern Energy Power Distribution plc: Southern Electric Power Distribution plc.
Supply chain	Refers to all the parties involved in the delivery of electricity and gas to the final consumers, from electricity generators and gas shippers, through to electricity and gas suppliers.
SWALES	Western Power Distribution (South Wales) plc.
SWEST	Western Power Distribution (South West) plc.
Totex	Total expenditure. Totex generally consists of all the expenditure relating to a licensee's regulated activities. It comprises total capex plus opex .
Trombone	The index applied to the cost of debt that commences as a 10-year index and extends up to 20 years.
UKPN	UK Power Networks comprising LPN ; SPN ; and EPN .

UQ cost benchmarking

Upper quartile cost benchmarking refers to the approach of setting a benchmark at the 25th percentile (ie the lowest) of **DNO** costs. This approach has typically been proposed for areas of expenditure where there is a high degree of commonality across different **DNOs'** expenditure.

WACC

Weighted average cost of capital. The weighted average of the cost of equity and the cost of debt, where the weighting is provided by the gearing ratio. This represents the cost to a company of raising the funds for its activities (specifically, its **capex** programme). As part of the price control process, **Ofgem** sets an allowance for the expected WACC.

WMID

Western Power Distribution (West Midlands) plc.

WPD

Western Power Distribution. Comprising **WMID**; **EMID**; **SWALES**; and **SWEST**.