Making a positive difference
for energy consumers

Distribution network operators, generators, transmission owners, electricity suppliers, pension scheme trustees, consumers and their representatives; and other interested parties

Your Ref:
Our Ref:
Direct Dial: 020 7901 2786
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Date: 28 October 2013

Dear colleagues

Reasonableness review of energy network operators pension costs

As outlined in our decision document, *Price Control Treatment of Network Operator Pension Costs Under Regulatory Principles* 76/10 dated 22 June 2010 and as clarified in subsequent price control documents[1], we will commission independent experts (Consultants) to conduct an initial review of the reasonableness of network operators' (NWO) pension costs.

Scope

The review will cover:

- all NWO's principal defined benefit (DB) pension scheme valuations as at 31 March 2013
- for electricity distribution network operators (DNOs) their actual payments into their DB pension schemes from 1 April 2010 to 31 March 2013
- electricity and gas transmission network operators (TOs/SOs) actual payments into their DB pension schemes from 1 April 2012 to 31 March 2013.

Objective

The review will assist and inform our decision in determining whether an NWO's pension costs are reasonable and the reset of allowances from 1 April 2015. It will also inform the true up of DPCR5 and any other NWO legacy pension costs, as provided for at their respective price controls. This independent review will not cover the pension deficit allocation methodology (PDAM) tables, only the scheme datasets. The review considers each scheme's total funding deficit, not just the element that has a specific funding allowance and periodic reset and true up in a price control.

Our assumption is that NWO's actual pension costs attributable to established deficits will be funded unless the review uncovers:

[1] http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=119&refer=Networks and subsequent Final Proposal documents for gas distribution (RIIO-GD1), gas and electricity transmission (TPCR4R and RIIO-T1) and the RIIO-ED1 Strategy Decision document (see appendix 4 for links)

- significant differences in the governance of a company's pension scheme relative to broader comparators within and outwith the sector

- those differences are to the detriment to consumers, taking today's consumers together with tomorrow's consumers and appropriate criteria for evaluating both risk and inter-generational issues

- those differences are reasonably attributable to the NWO, recognising the responsibilities and independence of trustees.

Feedback from previous review

Feedback from the previous review included a suggestion for having more meetings with companies, including the trustees to discuss their negotiation process, its outcomes, investment and deficit management strategies; and the actions taken by NWOs to mitigate increases in pension costs. We regard this as an important element and, since the last review, have extended an open invitation to licensees, trustees and actuaries to meet with us. We have held meetings with any party who requested one. These have proved both informative and instructive in understanding the tensions each face and their individual approach to managing pension costs.

Process

As part of our efforts to ensure an open and transparent process, we undertook to share with all network operators and other stakeholders our proposed terms of reference (for our independent experts)(TOR) for the initial high level stage of each future reasonableness review of pension costs. These have taken into account respondents' views on the conduct of, and process for, the last review. Our approach broadly follows that set out in our 22 June 2010 paper[2], ie for an initial review and report by those independent experts. This may be followed by a second stage, which may be undertaken concurrently with closing out the initial stage, ie after issues for further review have been identified but before the final report on the initial stage is published.

Dependent on the issues arising at the initial stage, we will consider whether the second stage is a wide-ranging in-depth review, or a focussed in-depth approach on a few issues. Where the initial review highlights a limited number of issues for further actual or potential action, we will take both a proportionate and reasonable approach to understanding and resolving them where we consider they do not require, justify or necessitate a wide-ranging in-depth review. This would avoid the unnecessary burden being placed on licensees that a wide-ranging review may incur. We may appoint independent experts to support us. We would not necessarily propose or expect to issue a separate report on the second stage. We will deal with the issues and any adjustments as part of the overall triennial pension reset and review and RIIO Annual Iteration Process (AIP)[3].

Timetable

Our proposed timetable is prescribed by the RIIO-GD1 and RIIO-T1 PCFM Handbooks, the RIIO-ED1 Strategy Decision document; and the Triennial Pension RIGs[4] (at paragraph 1.9), ie the AIP timetable. It is determined by the requirement to reset all NWOs revenue allowances effective 1 April 2015.

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[2] Price control treatment of network operator pension costs
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=119&refer=Networks
[3] for explanation of the AIP see chapter 7 of http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecFinancialIssues.pdf

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We recognise that it may not be possible or practical to complete all stages of this review by 31 October 2014 to meet the AIP timetable for directing adjustment to revenues in RIIO-GD1 and T1 together with revised amounts for the start of RIIO-ED1. This review process for pension costs is repeated triennially thereafter. Our intention is to allow the reviews to run their course and not use any initial findings to raise preliminary adjustments, where required, to meet the AIP timetable for the annual direction. If we are not able to direct within the AIP timescales, the adjustments will be made in the following year but with the same effective date.

Governance relationship with trustees and NWOs

Energy network consumers are major stakeholders in the valuations, insofar as they are paying for the all or a large element of the resulting deficit. As such, we need to understand how the employer covenant review recognises this and the funding commitment made by Ofgem; how de-risking strategies and speed of the recovery plan affects different generations of consumers, and how these were addressed and resolved and align with consumers interests. One objective of the initial review is to provide assurance that the consumer is effectively recognised as a primary stakeholder in any pension scheme sponsored by NWO's. In particular, that the governance of an NWOs' pension scheme takes full consideration of consumer interests in setting funding and investment strategies.

In addition to the data required by the Triennial Pension RIGs[4], we will invite licensees and trustees, if they wish (as we do not regulate or have a direct relationship with the latter) to individually or jointly set out in the data submission and meetings additional information which may inform our, and our consultants, review. The objective will be to discuss their negotiation process, its outcomes, strategies; and, where for example, there are offsetting assumptions which may also appear to be outliers, the resultant recovery plans; and how all these align with consumers interests.

Additional information requests

In accordance with the Triennial Pension RIGs, NWOs are required to provide a copy of the employer covenant review to Ofgem, which we recognise may be of a confidential nature or contain information of a confidential nature and consequently we will not publish. The employer covenant review is prepared for the trustees and not the licensee. Ofgem acknowledges that it is at the discretion of the trustees and covenant reviewer as to whether a copy is provided to us. Licensees are required to use reasonable endeavours to provide Ofgem and its consultants with a copy. As our process relies on reviewing the assessment of the strength of the covenant and inter-action with the valuation and recovery plan, it's non-provision and the inability to review it may draw adverse inferences as to both our and our independent experts' assessments.

We require a copy of the recovery plan for the 2013 valuation, or for those with an earlier triennial valuation, that recovery plan. If we or our independent experts require it, further information may be requested. This will be determined in early 2014.

We propose to request a detailed analysis of the "impact of changes in actuarial assumptions due to changes in market conditions" item, in section D1 of the PDAM table P1.2 and an explanation of how this has affected the asset and liability values. We are asking this as this factor is the most material movement in the valuation, to aid our understanding.

We are considering requesting:

[4] https://www.ofgem.gov.uk/ofgem-publications/42761/nwo-triennial-pension-rigs-supplements-v1.0-12apr13.pdf

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- a value at risk analysis, ie a one in twenty chance that the shortfall is worse than the forecast deficit, at the end of our notional 15-year funding period, from licensees

- a neutral estimate of the value of scheme's liabilities to assess the level of the relative prudence in the actuarial assumptions, and identify outliers

We understand that schemes or NWOs may conduct such analysis and consider these would provide useful information to inform the review. We welcome specific comments on their inclusion in the review.

Invitation to comment

We set out draft terms of reference (TOR) for the forthcoming review at appendix 1. We invite comment from interested parties on them, the process and any of the issues raised in this covering letter. They should be sent to **William McKenzie, Senior Manager, Regulatory Finance, Ofgem, 9 Millbank, London SW1P 3GE**, or william.mckenzie@ofgem.gov.uk. Unless marked as confidential, all responses will be published by placing them in Ofgem's library or on our website. A short summary of the findings of the review will be published on our website together with our terms of reference, once independent experts have been appointed.

If there is sufficient demand by stakeholders, we will hold a workshop on the draft TOR. We have provisionally scheduled two dates – 6 and 12 December. Please indicate whether this would be of interest in your response and your preferred date, we will go with the most popular. Your response should be received by 29 November 2013.

Any questions on this letter should be directed to William McKenzie who can be contacted on 020 7901 7220 or by email at william.mckenzie@ofgem.gov.uk.

Yours faithfully

Ian Rowson
Associate Partner, Regulatory Finance and Compliance
Smarter Grids and Governance

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Appendix 1: Draft Terms of Reference for reasonableness review of NWO pension costs

1. Purpose

1.1. This document sets out the terms of reference for the initial stage of the reasonableness review of:

- all NWO's principal defined benefit (DB) pension scheme valuations as at 31 March 2013
- for electricity distribution network operators (DNOs) their actual payments into their DB pension schemes from 1 April 2010 to 31 March 2013
- electricity and gas transmission network operators actual payments into their DB pension schemes from 1 April 2012 to 31 March 2013,

as prescribed in our pension methodologies, pension principles and the relevant price control documents[5].

1.2. It will also address the actions within their control taken by NWOs to mitigate increases in pension costs.

1.3. The review is to consider each scheme's total funding deficit, not just the element that has a specific funding allowance and periodic reset and true up in a price control.

2. Background

2.1. As part of the 2008-10 review of our Pension Principles[6] and, as outlined in relevant price controls documents, we set our approach for a triennial reasonableness review, which Ofgem uses to determine whether a company's pension deficit repair costs are efficient and not unreasonable.

2.2. The last review was undertaken by the Government Actuary's Department (GAD), which conducted a high-level review in 2011-12 reporting in May 2012[7]. That review had different terms of reference to an earlier review[8] undertaken by GAD as part of the review of our Pension Principles. The scope for this forthcoming review has been widened to apply the lessons learnt from those reviews.

2.3. This scope of this review applies the guidelines in our fourth pension principle on over-/ under-funding and our funding commitment in our first pension principle.

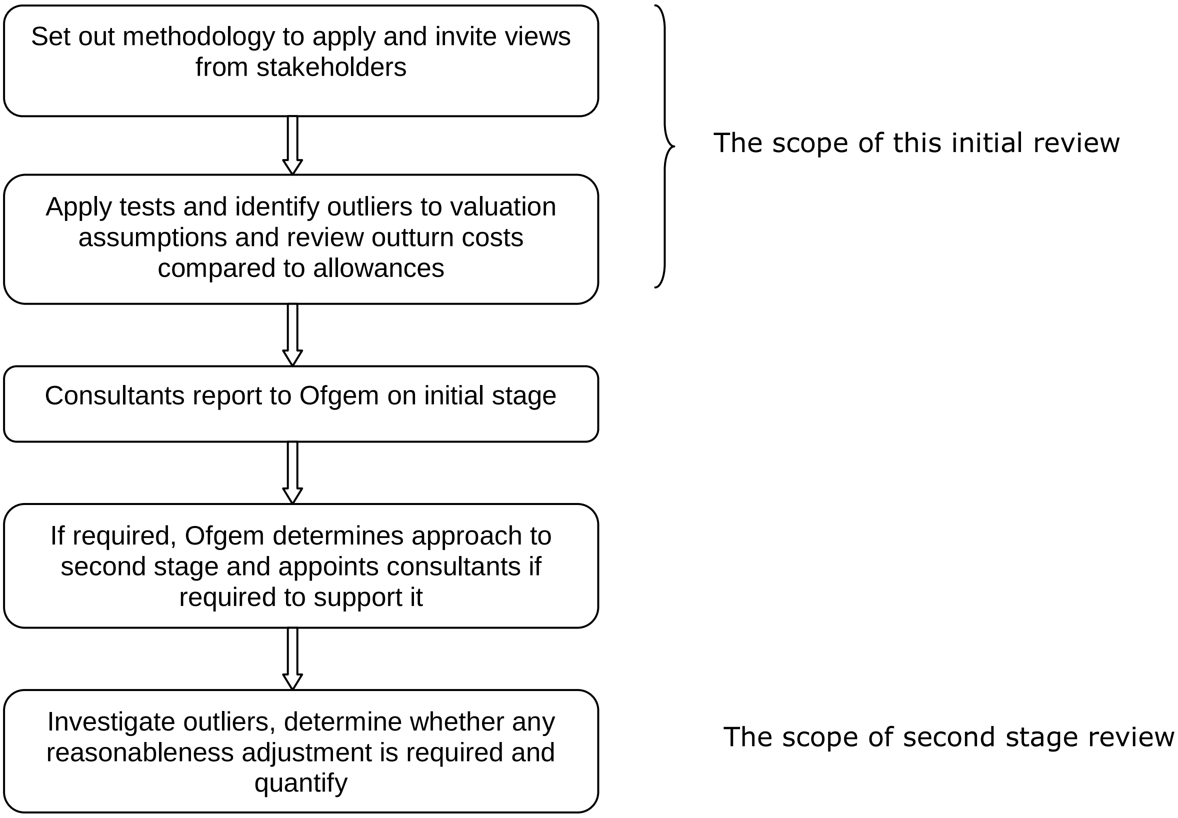
2.4. A second stage review will inform Ofgem's decisions on whether the company should retain any, or a proportion of, the apparent reasonableness savings if outturn costs are lower than the allowances. The second stage may be undertaken concurrently with the initial stage.

2.5. The initial and any second stage review will inform Ofgem's decision on the level of any additional funding if either the outturn costs are higher than the allowances or where the deficit has increased and either may be due to inefficiencies; and the reset of

[5] set out in appendix 4
[6] see appendix 2
[7] https://www.ofgem.gov.uk/ofgem-publications/42780/gad-peniosn-report-16052012.pdf
[8] http://www.ofgem.gov.uk/Networks/Documents1/Ofgem%20Report-finalsigned.pdf

pension allowances as prescribed in the relevant price control documents (see appendix 4).

2.6. The process can be shown as:



3. **Objectives of initial review**

3.1. Energy network consumers are major stakeholders, insofar as they are paying for the all or a large element of the resulting deficit. The initial review is to provide assurance that the consumer is effectively recognised as a primary stakeholder in any pension scheme sponsored by NWO's. In particular, that the governance of an NWOs' pension scheme takes full consideration of consumer interests in setting funding and investment strategies.

3.2. The consultants are required to assess the following broad areas:

- that valuation assumptions are not outliers
- that pension costs are reasonable
- that member benefits are efficient and not unreasonable
- that pension scheme governance and the management of pension scheme risks do not adversely affect consumer funding

3.3. The consultant will provide information and comment on the valuation assumptions and recovery plans by identifying:

- whether the movement in the deficit (reviewing separately the movement in underlying assets and liabilities) appears to be out of line with the general market

- whether any schemes' benefits, investment strategies, funding methodologies, funding assumptions, funding levels or standard contributions appear as outliers compared to:
  (a) utility sector peers, and
  (b) publicly available information on other UK private sector DB pension provision

- with reference to actions taken by wider private sector scheme sponsors and other regulated companies, actions which could have been taken by NWOs to reduce or mitigate increases in pension liabilities

- to identify the residual risk to shareholders after the notional 15-year funding period by analysing Value at Risk information on the current pension scheme investment strategy, ie a one in twenty chance that the shortfall is worse than the forecast deficit at the end of our notional 15-year funding period

3.4. The initial review will assist and inform Ofgem's determination of (a) whether or not the NWO's pension costs should be subject to a second stage review, and (b) to ascertain whether:

- increased balances on deficits should be funded going forward,

- over-spends against allowances should be made good,

- under-spends against allowances should be clawed back.

4. Scope of review

4.1. As part of this review, consultants are required to undertake and consider the procedures and steps outlined below.

Analysis and methodology

4.2. Analyse the DB pension scheme data[9] and compare licensees' pension arrangements (including actuarial assumptions and scheme benefits) with other NWOs and publicly available information on other UK private sector DB pension provision (subject to the availability of reasonably concurrent data) to:

(a) assess whether valuation assumptions and, by comparison, assumptions in recovery plans, are outliers, consultants will:

i. identify any actuarial assumptions that are outliers compared to

a) the neutral estimate of the value of scheme's liabilities in the triennial valuation

b) utility peers

c) publicly available information on other UK private sector DB pension provision, and

advise whether there are any offsetting assumptions or mitigating factors for the outlier assumptions or costs;

ii. identify whether the valuation assumptions and deficit recovery plan assumptions take into account (favourable and/or unfavourable) market movements since the valuation date (31 March 2013, or 31 March 2012 if full valuations dates are a year earlier)

[9] in the annual cost report submissions provided by NWOs to Ofgem, annual audited pension scheme accounts and the most recent valuations.

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iii. review the reconciliation of the deficit balance to the previous triennial valuation to identify any areas requiring additional explanation, (if possible) quantify the impact and report thereon

iv. identify the level of prudence applied to assumptions where the scheme has acquired a buy-in or in the hedging of scheme risks

v. identify changes in mortality assumptions and assess whether these are reasonable and adequately supported by scheme specific evidence

vi. identify movements in the deficit due to market conditions to ascertain whether these are reasonable and adequately supported

vii. review the Employers' Covenant Report, which has been produced for pension scheme trustees to obtain a view of the impact of any covenant factors on contributions and deficit funding levels/plans, and report on any identified weakness in the covenant or other issues which you consider should be brought to Ofgem's attention. The absence of a covenant review, or the non-provision of one for the purposes of the review[10], should also be identified in the Consultant's report

viii. identify where a deficit recovery plan has not used an outperformance assumption compared to the assumptions in the valuation and comment on any stated rationale

ix. identify changes in the assumptions of percentage take up of commutation payments on retirement and whether these are reasonable and adequately supported by scheme specific evidence

(b) identify whether pension costs and member benefits are efficient and not unreasonable, consultants will:

i. identity whether levels of scheme administration and investment management costs are materially out of line with industry figures in the period under review (see 1.1) identify where an employer has scope under a schemes' rules to request that any future pensions in payment from movements in RPI above an amount prescribed in the rules are restricted; and, (i) whether it has requested such a restriction, (ii) not requested such a restriction, or (iii) successfully had such a request acceded to, and report which and the year(s) for which it is applicable

ii. review actions taken by NWOs and other private sector employers to identify:

- what actions they have taken to mitigate increases in pension liabilities;
- actions which other employers have taken which NWOs could have taken but did not take
- actions NWOs took which have the effect of increases the liabilities which they did not have to make, and to quantify the latter,

by benchmarking against other utilities/private sector employers with DB schemes and identifying best practise

(c) assess whether pension scheme governance and management of scheme risks are outliers:

i. to identify whether scheme risk management and governance is dynamic or reactive; assessing consideration of de-risking or re-risking strategies, innovative funding strategies, or the use of contingent assets adopted by schemes; and

ii. to assess the impact on the underlying assets and liabilities of the pension scheme's risk management strategies

[10] Neither Ofgem or the Authority will enter into "hold harmless" arrangements, although we accept that it may be necessary to redact parts of the covenant review

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iii. to identify any scheme assumptions that disproportionately attribute risk to consumers without adequate justification (eg assumptions in the investment strategy that attribute lower returns / higher risk to consumers than is appropriate for the split of regulated / non-regulated activities within the licensee)

iv. to identify the residual risk to shareholders after the notional 15-year funding period by analysing Value at Risk information on the current pension scheme investment strategy, ie a one in twenty chance that the shortfall is worse than the forecast deficit at the end of our notional 15-year funding period

v. to review scheme's deficit management strategies and the effect on consumers

Setting the methodology for the review

4.3. In discussion with Ofgem, construct in advance the methodology for the review of the above items, including:

a) actuarial assumptions -
- the discount rate, particularly with respect to the value placed on out-performance
- longevity aspects, particularly the allowances made for future longevity increases
- inflation
- salary increases,

having regard to market conditions at 31 March 2013

b) benefits and contribution levels -
- scheme benefits
- employers contribution rates
- employees contribution rates

c) investment strategies, in particular an NWO's investment risk relative to pension liabilities, using similar charts to those in the previous GAD report[11]

d) investment performance (this should be considered over at least ten years unless the scheme has been in existence for less than 10 years, then for all available years – see caveats in Pension Principle 3)

e) general overview of risk profile and movements towards de-risking it's investment strategy

f) levels of scheme administration and investment management costs

g) actions taken, or actions by peers not taken by an individual NWO to mitigate current and future liabilities.

Ofgem's assistance with data

4.4. To assist the Consultant and facilitate the timely start of the review Ofgem will extract and prepare the scheme data in a standard format(s), which the consultant may prescribe.

[11] One comparing each NWO's exposure to return seeking assets (figure 3, page 23) and one comparing each NWO's exposure to return seeking assets against their percentage of pensioner liabilities (figure 4, page 24).

5. **Output from review**

5.1. Consultants should draft a statement setting out its methodology for the review, to be published before NWOs are required to provide their pension data submissions; and advise any additional information which they require for their review.

5.2. We will require stage reports in bullet point format; draft findings and a publishable detailed report covering Consultants review of:

- how the objectives have been achieved
- each of the areas set out in the scope paragraphs above; and
- specifically identifying any NWO's scheme or actuarial assumptions which is an outlier from the peer group and UK private sector DB pension schemes, and any mitigating circumstances.

6. **Proposed Timetable**

6.1. Our proposed timetable is prescribed in the RIIO-GD1 and RIIO-T1 PCFM Handbooks, the RIIO-ED1 Strategy Decision document and the Pension RIGs (at paragraph 1.9). It is determined by requirement to reset NWOs revenue allowances effective 1 April 2015, although if the review has not been concluded this will be delayed until 1 April 2016.

6.2. In order to achieve the 31 October 2014 deadline, we propose:

Determine additional data requirements	early 2014
Determine methodology	31 March 2014
Meetings with NWOs, trustees and actuaries	April to June 2014
NWOs submit valuations[12] as at 31 March 2013 to Ofgem and documents specified in paragraph 2.4	7 July 2014
Ofgem provide data and submissions to Consultants and review commences	14 July 2014
NWO's submit PDAM data tables and related supporting documents to Ofgem (not part of consultants initial review)	30 September 2014
Draft findings for discussion	30 September 2014
Ofgem to consider whether to appoint independent experts to support us in the second stage review, if any	On and before 30 September 2014
Draft report to Ofgem on initial stage	31 October 2014
NWOs advised of allowances and true up amounts as part of Annual Iteration Process	On or before 31 October 2014
Revised allowances published	On or before 30 November 2014
Final publishable report on initial stage	14 December 2014

7. **Data**

7.1. The review information on typical UK private sector DB provision pension should be taken from publicly available data including but not limited to:

- "*Scheme funding: An analysis of recovery plans*", the Pensions Regulator
- "*The Purple Book – DB pensions universe risk profile*", Pension Protection Fund and the Pensions Regulator
- "*Annual Survey*", National Association of Pension Funds
- "*Occupation Pension Schemes Annual Report*", Office for National Statistics

[12] As defined in the Pension RIGs document (see appendix 3)

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- Surveys and analyses published by pension consultancies.

7.2. The 2014 review will be based, as far as possible, on information in triennial regulatory returns and pension scheme datasets as specified in our *Energy Network Operator's Price Control Pension Costs – Regulatory Instructions and Guidance: Triennial Pension Reporting Pack supplement*s *including pension deficit allocation methodology*[13] (Pension RIGs). This will comprise of:

- the actuarial valuation of the licensee's pension scheme(s), either a full valuation as at 31 March 2013 or an updated valuation of the last preceding full triennial valuation (where the date of the full valuation is not concurrent) with the asset and liability values rolled forward to the above date(s) on basis defined in the pensions deficit allocation methodology document
- the schemes statement of funding principles
- the schemes statement of investment principles
- the deficit recovery plan
- the completed pension data tables and supporting documents specified in the price control review cost information Regulatory Instructions and Guidance (Pension RIGs) document but not the PDAM tables (which Ofgem will review).

7.3. Additional information may be requested as determined necessary.

7.4. Consultant's review will rely on the general completeness and accuracy of this information and the data submitted by NWOs. We accept that any inaccuracies or omissions in NWOs' responses will affect the results of Consultant's review. We do not require the Consultant to carry out any independent audit or verification of the results and information provided by NWOs and summarised by ourselves.

8. **Limitations**

8.1. The review will principally be an information gathering, summarising and analysis exercise. Consultants applying their professional skill and judgement to the scope set out in section 4 above. Identification as a possible outlier should not be seen as actual or implied criticism of a scheme or NWO, but would simply allow us to consider if further investigation would be worthwhile (and to inform the decision of how further work might be specified).

8.2. It is recognised that schemes' investment strategies and funding valuation assumptions reflect each scheme's particular circumstances, and that a "one-size fits all" approach is not appropriate. The Consultant's review is not intended to be interpreted as advising that a particular approach or level of provision is necessarily inappropriate.

8.3. It is recognised that comparisons with publicly available information on other schemes do not take into account factors which affect particular industries, sponsors or pension schemes in isolation.

8.4. Consultant's review will consider NWO's DB pension provision in isolation. We recognise that pension arrangements are only part of overall remuneration packages.

[13] https://www.ofgem.gov.uk/ofgem-publications/42761/nwo-triennial-pension-rigs-supplements-v1.0-12apr13.pdf

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Appendix 2: Ofgem's price control pension principles

1.1. Under RIIO price controls, our pension principles remain the same as previously set out. We have refined the guidance notes for each principle, to take account of developments in the pension arena, our pension methodologies; and how we intend to apply them to Defined Benefit (DB) pension schemes in RIIO price controls[14]. These do not apply to defined contribution pension costs, which will dealt with as part of total employment costs and totex.

Principle 1 - Efficient and economic employment and pension costs

Customers of network monopolies should expect to pay the efficient cost of providing a competitive package of pay and other benefits, including pensions, to staff of the regulated business, in line with comparative benchmarks.

1.2. Consumers should not be expected to pay the excess costs of providing benefits that are out of line with the wider private sector practice, nor for excess costs avoidable by efficient management action. We will, unless inappropriate, benchmark total employment costs (including all costs for service after the relevant cut-off date) within total costs and subject these to the same incentive as all other costs. We do this to ensure companies have the correct incentives to manage their costs, including pension costs, efficiently.

Funding commitment

1.3. For each network company, consumers will fund the Established Deficit as at the end of the relevant price controls (ie DPCR4, TPCR4 and GDPCR1). The Established Deficit means the difference between assets and liabilities (the value of the benefits) attributable to pensionable service up to the end of each respective price control period set out below and relating to the regulated business under principle 2:

- for DNOs – the price control period ending on 31 March 2010
- for gas distribution network operators (GDNs) – the price control period ending on 31 March 2013
- for TOs and SOs – the price control period ending on 31 March 2012.

1.4. In accordance with principle 5, subject to adjustments to the regulatory fraction, the funding commitment covers the quantum of the Established Deficit at the respective cut-off dates in paragraph 1.3 above. The Established Deficit is subject to changes at each triennial reset point within our notional 15-year funding period, caused by exogenous factors, for example a fall in the value of stock markets or changes in longevity assumptions. This will apply, even if there has been an interim period during which a funding surplus is reported. Changes in the deficit arising from de- or re-risking or any other rebalancing of assets will be subject to review. We will do this to ensure that the scheme's expectations from such actions, at the point they are considered or before implementation, demonstrate the benefits to consumers. Our overriding provisos are that the scheme or schemes have been efficiently managed in accordance with principle 3; and, that the costs are efficient and economic in accordance with this principle 1. We understand that efficient de-risking could be substantially funded from efficiencies identified elsewhere within the scheme, eg reducing the level of prudence in assumptions, adopting an internal inflation hedge and cost effective hedging strategies.

1.5. Conversely, the funding commitment does not cover any element of deficit falling outside the scope of the Established Deficit (eg non–regulated activities and bulk transferees) or future service of those employees still active in the scheme after the

[14] The guidance in this appendix is as set out in appendix 7 of our RIIO-ED1 March 2013 Strategy decision document - Financial Issues supplement http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecFinancialIssues.pdf

relevant cut-off date. We will not make any future allowance for funding such deficit elements, ie the incremental deficit, other than through the totex allowance process and subject to the same incentive sharing mechanism that all other elements of totex are subject.

1.6. We will treat any deficit funding payments that arise from service after the relevant cut-off dates above, as part of totex. These are subject to the same incentive mechanism(s) as employment and total costs in general. These payments will be the actual payments made by the network operators determined in accordance with the pension deficit allocation methodology (set out in the Pension RIGs).

Notional deficit repair funding period

1.7. The Established Deficit will be funded over the notional 15-year deficit-funding period. We will apply a flat profile over the deficit-funding period allowing a rate of return. We do not reset the 15-year period at each subsequent control. The intention is that the deficit at the cut-off dates will be fully funded over the following 15 years from the respective cut-off dates. In the event that the Established Deficit increases materially in the latter part of the 15-year period, the funding period may be extended at our discretion in order to protect different generations of consumers. In addition, if a new Established Deficit arises, following the 15-year funding period, additional allowances may be provided on a case-by-case basis where that new deficit is due to exogenous factors and not poor stewardship. This deficit must relate to pensionable service accrued up to the cut-off date and be demonstrated to be efficient and economic by a reasonableness review.

Pension scheme administration costs and Pension Protection Fund (PPF) levies

1.8. These two items are, either paid directly by network operators or funded through increased employer contributions to the scheme. In setting allowances, we normalise the treatment of these costs; identify them separately and, as appropriate, exclude them from active service contributions.

1.9. The PPF have introduced a new framework for setting their levies in 2012-13. The PPF propose to review the levies and may amend them every three years. This new basis may increase, or decrease, the quantum of each scheme's annual levy as the PPF adopts a risk-based approach applied to each scheme's assets and liabilities and the likelihood of failure. These costs are partly outside the control of sponsors and trustees.

1.10. For RIIO-ED1, we have retained the approach set out at DPCR5 for future price controls. We will include the costs in totex and include them in same incentive mechanism as totex. This is a different approach to that introduced in RIIO-GD1 and T1. For those controls, the costs are excluded from the incentive mechanism; and, where the combined outturn costs exceed the aggregate of the combined allowances and a £1m threshold, we true up for the excess.

Stranded surplus and de-risking

1.11. In the event that a surplus arises (ie assets exceed the full buy-out cost of accrued liabilities as shown by an appropriate actuarial valuation), only the trustees have the power to decide whether it is in the interests of scheme members to repay any of the surplus to the employer (in accordance with the scheme rules and other legal requirements). Trustees' have obligations to protect scheme members.

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Appendix 2 RIIO Price Control Pension Principles

1.12. Network operators' DB schemes are generally closed mature schemes with the majority of members either pensioners or deferred pensioners and with the average age of active members around 48-50 years. As such, we understand that they are generally looking to match their assets and revenues to their liabilities, which should become easier to forecast as most members retire. In doing this, their investment strategies may move from riskier to less risky assets, and they will likely use hedging and, possibly, other innovative funding strategies. In these circumstances, network companies consider that the potential for a surplus is very unlikely to arise. If this was the case, they consider that consumers may indirectly benefit from investing in less risky assets to protect schemes from increased deficits on riskier assets, which are subject to market movements. For the avoidance of doubt on the future regulatory treatment of de-risking, network operators may wish to seek guidance from us on a case-by-case basis.

1.13. Sponsors may also seek to use contingent assets, where possible, to mitigate increases in deficit funding costs where schemes have achieved very high funding levels. This latter option may be effective in reducing funding costs for consumers. We will encourage and expect the network operator to demonstrate at inception the expected benefits to consumers.

1.14. We will monitor each scheme's position on an annual basis. In the event that a scheme was in surplus for a given period, particularly a reset point, we consider that there is a reasonable expectation for symmetry in the treatment for funding of deficits and use of a surplus. We would therefore expect to share a surplus between members and consumers pro-rata to their funding of it. We would consider our options at each triennial reset point for truing up and resetting allowances (potentially including negative allowances), such that consumers would benefit and shareholders would cover the cost in the event that contribution levels remain the same. We will review each instance on a case-by-case basis.

Buy-ins and buy-outs of pension schemes liabilities

1.15. These currently fall within the scope of principles 1, 2 and 5. Buy-ins and buy-outs are effectively a de-risking of future liabilities. It will be necessary to determine how such de-risking should be shared between consumers and shareholders, to facilitate efficient management of the schemes and to remove uncertainty as to the regulatory treatment. It is difficult to be prescriptive as to how they should be spread between different generations of consumers. For guidance, an equitable option is to spread these costs over the same deficit repair period used to set allowances, for DPCR5 and RIIO price controls. This is our notional 15-year funding period commencing from the respective cut-off dates. However, if these occur towards the end of that funding period, we reserve the right to review the spreading period. We will deal with buy-ins and buy-outs, if they occur, applying these existing pension principles on a case-by-case basis.

Principle 2 - Attributable regulated fraction only

Liabilities in respect of the provision of pension benefits that do not relate to the regulated business should not be taken into account in assessing the efficient level of costs for which allowance is made in a price control.

1.1. It is for shareholders, rather than consumers of the regulated services, to fund liabilities associated with businesses carried on by the wider non-regulated group, ie activities not remunerated by network operators' price control allowed revenues. This includes businesses that were formerly carried on by the same ownership group and have been sold, separated and/or ceased to be subject to the main price control. In principle, this may include costs related to self-financing excluded services, metering, and de minimis activities of the network company and of unregulated businesses in the same scheme in the

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context of a transportation and/or distribution price control. For the purposes of the regulatory fraction and the pension deficit allocation methodology, these are collectively labelled 'non-regulated activities', being activities not remunerated by base demand revenues. These will be dealt with on a case-by-case basis, as in some cases the costs of such businesses or activities are not readily separable from the regulated business.

1.2. The regulatory fraction determined in setting allowances will be reviewed to assess the adjustment when there have been structural changes to a scheme within a price control period, at each reset. We will also review and adjust for movements, including cash funding by sponsors to the previously unfunded Early Retirement Deficiency Contributions.

1.3. Structural changes may occur when:

- schemes merge or demerge
- members are transferred in or out in bulk
- there is a change of ultimate controller
- there is a buy-in/buy-out of any part of the scheme membership.

1.4. We require that actual or potential movements in the regulatory fraction, arising after the relevant cut-off date, are made and reported annually by network operators. This is required as an adjunct to the operation of the pension deficit allocation methodology.

Bulk transfers

1.5. During a price control period, there may be bulk transfers of members in or out of a DB scheme through corporate activity. These transfers are usually only accepted when the transfer value finances the deficit, if any, of the transferees. Bulk transfers in to a scheme require approval by trustees and as specified by the Pensions Regulator (TPR), they must be fully funded (in all but exceptional circumstances). TPR guidance states: "There is no statutory obligation for a trust-based scheme to accept transfers-in and provide benefits in exchange. Some schemes do offer defined benefit transfer credits, typically in the form of added years counting for benefits on the scheme's normal formula. Other schemes offer money purchase benefits in exchange for transfers, in which case no issues arise as to assumptions for determining benefits". It also states, "A transfer credit should not be expected to require additional funding from the employer in the long term unless agreed by the employer in advance".

1.6. Under our commitment to fund the Established Deficits, movements in deficits arising from bulk transfers that result from corporate transactions, whether fully funded or not, are a risk for shareholders and not consumers. This applies even where the transferred protected person's pension liability is underfunded where it arises from a corporate transaction. We require network operators to advise these annually and, as appropriate, we may revise the regulatory fraction.

1.7. Trustees may accept bulk transfers into a scheme. These may include protected persons who may or, may not, be considered part of the regulated activities. We acknowledge that, network operators subject to the protected person's legislation, may have very limited scope to decline transfers in of protected persons. Where protected persons have been funded by one set of consumers in a price-controlled licensee, and transfer into a different licensee's scheme we are minded to continue that funding of the amount transferred relating to an Established Deficit. In all other circumstances, we consider that these are not part of the Established Deficit and therefore shareholders, not consumers, will fund any increase related to the transferees at future price controls.

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1.8. This clarification covers only bulk transfers where individuals or groups of individuals (but not whole, or substantially, whole schemes) are transferred as part of a smaller transaction to acquire an activity rather than a licensee. We exclude a full merger between two existing DB schemes because of a corporate transaction. We will deal with this as a structural change (see above).

1.9. We cannot predict whether this treatment will be equitable in all situations. If we are satisfied that there are exceptional circumstances, we retain the option to deal with these on a case-by-case basis.

Principle 3 - Stewardship - ante/post investment

Adjustments may be necessary to ensure that the costs for which allowance is made do not include excess costs arising from a material failure of stewardship.

1.10. We will disallow any excess costs arising from a material failure in the responsibility for taking good care of entrusted pension scheme resources. Examples might include items such as recklessness, negligence, fraud or breach of fiduciary duty. We will review stewardship and reserve our position to make adjustments to allowances if we observe, for example, any of the following:

- poor investment returns over a long period, eg greater than a single price control
- scheme investment managers underperform against their peers or the market and expectations and their performance has not been reviewed or benchmarked at appropriate intervals
- not matching investment/returns to fund future liabilities as they fall due
- material increase in deficits and need for increased funding
- maintaining a higher balance of investments in riskier assets compared to investment returns which do not match future liabilities
- accepting transfers in at under value
- making transfers out at over value.

1.11. In determining whether pension costs are reasonable, we may compare the level of funding rate recommended by periodic actuarial valuations to the actual funding rate adopted by the licensee. As long as a funding valuation uses actuarial assumptions, which are in line with best practice and are not outliers, the costs may be included in the assessment of totex and be subject to any incentivisation adjustment and the reasonableness review set out in principle one. This is one potential indicator of whether there has been a material failure in stewardship. We reserve the right to examine investment and scheme administration costs to see whether these are materially out of line with industry figures.

1.12. The choice of investment strategy is one for trustees and necessarily involves the exercise of judgment, which, for any particular scheme and at any particular point in time, the trustees are best placed to make. We do not think it is appropriate, given our statutory remit, for us to make judgments about investment strategies. In particular, the success or otherwise of any particular strategy can only be measured in hindsight, whereas trustees must make ex ante choices. Moreover, the strategy, which optimises outcomes over the whole life of a scheme, may produce inferior results over any particular shorter period (and vice versa). Therefore, it would be inappropriate for us to make judgements about investment strategies based on outcomes over the period of one price control. As part of a reasonableness review, we will review investment returns and will do so over a period of at least 10 years. As set out in principle one, we will keep under review the effect of de-risking strategies and any increase in the burden for consumers and across different generations of consumers.

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Appendix 2 RIIO Price Control Pension Principles

Principle 4 - Actuarial valuation/scheme specific funding

Pension costs should be assessed using actuarial methods, on the basis of reasonable assumptions in line with current best practice.

1.13. We expect the level of scheme funding to be assessed on the basis of forward looking assumptions regarding long-run investment returns and other key variables. Network operators are required to provide up-to date actuarial calculations (including the most recent formal actuarial valuation of the relevant schemes) to support their business plan estimates. During an eight-year price control period, network operators are required to provide annual updated rolled-forward valuations to 31 March each year and triennial valuations to enable the resetting of and the true up of opening adjustments.

1.14. We would not expect substantial differences between companies. However, if a reasonableness review identifies an outlier, we will investigate and review the reasons for this. If evidence of material differences arise, and these differences have contributed to an increase in funding required we may adjust the recommended funding rate for the purposes of setting and truing up price control allowances.

1.15. Network companies have advised that, in their view, de-risking strategies should protect the funding position of their scheme over the long term, in that they should place a floor on the downside. However, such strategies may significantly reduce the potential upside from future out-performance of various asset classes.

1.16. Whilst a move to de-risking these mature closed schemes may be expected, we will keep under review the increase in the burden for consumers and different generations of consumers. This may arise from a combination of the speed and timing of de-risking, the use of conservative valuation and asset return assumptions (particularly of gilts, which have shown negative real returns) and increasing longevity. We understand that efficient de-risking could potentially be substantially funded from efficiencies identified elsewhere within the scheme, eg reducing the level of prudence in assumptions, cost effective hedging strategies. We expect companies to demonstrate how their de-risking strategies and the use of contingent assets adopted or being considered are or will protect future scheme funding and the benefits that they expect to flow to consumers and not just themselves or the scheme. For the avoidance of doubt on the future regulatory treatment of de-risking or use of contingent assets, network operators may wish to seek guidance from us in a case-by-case basis. We will apply these pension principles to the consumer funding of both.

Principle 5 - Under funding/over funding

In principle, each price control should make allowance for the ex ante cost of providing pension benefits accruing during the period of the control, and similarly for any increase or decrease in the cost of providing benefits accrued in earlier periods resulting from changes in the ex ante assumptions on which these were estimated on a case-by-case basis.

1.17. We will not set allowances or make true up adjustments for ongoing pension active service costs in RIIO price controls. Instead, they will form part of the overall assessment of totex and as such are subject to the same incentive mechanisms for sharing under- or over-spend. In the RIIO price controls, those ongoing costs will exclude scheme administration costs and PPF levies. Their treatment is explained in paragraph 1.10 above.

1.18. Typically, pension schemes undertake full actuarial valuations triennially, whereas, RIIO price controls are typically now set for periods of eight years. It is likely that funding

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rates will change during the period of a price control. It is inappropriate to leave deficit funding unaltered for an eight-year period. We have established three-yearly reviews, reset of allowances and true up points over our 15-year notional funding period. This timetable runs parallel with that of price controls and irrespective of price control periods across all licensees. We will reset allowances effective 1 April 2015 based on full triennial valuation (where available) or rolled forward updated valuations (as set out in our methodology) as at 31 March 2013 and every three years thereafter. At the same time, there will be a reasonableness review to inform the quantum of the costs and, if considered necessary, adjustments to the allowances for funding of the Established Deficit but not ongoing service costs or incremental deficit funding.

1.19. The annual funding payments for the incremental deficit (from the respective cut-off dates in Principle 1) will be subject to the same incentive mechanism as all other costs (including ongoing pension service costs). Those annual payments are: (a) those actually made by the company in accordance with the deficit recovery plan in the relevant valuation; and (b) attributed to the incremental deficit in accordance with our pension deficit allocation methodology.

1.20. We will apply the following guidelines to the funding of the Established Deficit:

- An attribution must be made of the deficit and its constituent assets and liabilities between the Established Deficit, the incremental deficit and non-regulated activities. The detailed methodology for this is set out in the pension deficit allocation methodology, which is set out in *Energy Network Operator's Price Control Pension Costs – Regulatory Instructions and Guidance: Triennial Pension Reporting Pack supplements including pension deficit allocation methodology* and is part of each Regulatory Instructions and Guidance for reporting price control cost information for all licensees.

- We will perform triennial reasonableness reviews and reset allowances for the remainder of the notional 15-year funding period and make any necessary true up adjustments since the previous review or cut-off date. The reasonableness review will inform the allowances for the economic and efficient Established Deficit costs irrespective of the allowance set at the cut-off date and each subsequent review. We may determine and share the terms of reference with licensees at each review. The review will inform the level of any additional funding if either the outturn costs are higher than the allowances, or where the deficit has increased and either is demonstrably due to inefficiencies. Conversely, where outturn costs are lower than the allowances it will determine whether the licensee should retain any, or a proportion of, the savings.

- At each subsequent triennial review and related reset deficit-funding allowances will be reset based on the methodologies set out in the pension deficit allocation methodology. These will be set out in the RIIO-ED1 Price Control Financial Handbook.

- Any under- or over-recovery of efficient Established Deficit funding costs against the allowance in the previous three years as determined above, will be adjusted in future revenues over the remaining period of the initial notional 15-year funding period. We will make these NPV neutral using the same discount rates as used for spreading the ex ante deficit allowances. Consumers will be unaffected by the actual funding period set by companies.

- As noted under principle 2, we will apply a revised regulatory fraction at each triennial reset in accordance with our pension deficit allocation methodology. This will include the effect of any structural changes to a scheme on a case-by-case basis.

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We will update the element of the fraction related to movements in unfunded early retirement deficiency contributions (ERDCs) at each triennial review and reset dates.

Unexpected lump sum deficit payments

1.21. These tend to occur in instances of change in corporate control, or through corporate activity within the network operator's wider group. Whilst the trustees may take the opportunity to repair the deficit faster, it is not clear why consumers should pay an accelerated profile. Our default position is that we will treat the portion of the funding attributable to the Established Deficit as being made in equal annual instalments over the remaining period of the 15-year notional deficit funding period.

1.22. However, in exceptional circumstances, we may review the payment of the lump sum compared to what the position would have been if the deficit were spread over a number of years. This is to ensure that consumers have either positively benefited from, or have not been disadvantaged by the accelerated funding. Where a company cannot satisfy us that the accelerated payment has been in the interests of consumers (as opposed to shareholders or scheme members), our default position will apply.

Accelerated deficit funding payments

1.23. Where an annual deficit payment is accelerated by one or two years, for the purpose of the true up and NPV neutral adjustments, we will treat it as having been made in the year for which they were scheduled (in accordance with the original deficit funding plan) to be made.

Guidance on under-/over-funding applicable to pre-RIIO price controls

1.24. For price controls prior to RIIO (DPCR5, TPCR4 and GDPCR1), in principle the following guidelines[15] also apply to under-/over-funding:

1. We will log up the cumulative effect and pass the impact through to consumers when setting the price control at subsequent reviews subject to determining that such costs comply with Principle One being both economic and efficient and subject to any incentive mechanism applicable at a particular control.

2. In assessing the quantum, adjustments may be made where the costs are not determined to be both economic and efficient in line with Principle One.

3. Subject to any applicable incentive mechanism, we will reflect differences (if any) between the allowances made in setting previous price controls and the actual employer contributions made to pension funds over the same period.

4. To the extent that actual contributions in any period fall short of or exceed the assumed contribution, these will be dealt with in accordance with the appropriate incentive mechanism.

5. Where there is a material difference between the assumptions proposed by different actuaries and agreed by the boards of regulated networks, and therefore the costs paid by different groups of consumers vary materially, this will be reviewed to ensure that the interests of consumers are not being compromised.

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[15] As set out in the DPCR5 Final Proposals and our 22 June pension paper *Price Control Treatment of Network Operator Pension Costs Under Regulatory Principles* - for links see appendix 4

6. If we think that the level of funding has the impact of penalising current consumers, albeit that this may be for the benefit of future consumers, we may choose to defer some of the funding of the proposed contributions until future price control reviews. This is to ensure that the overall interests of consumers are met.

7. Subject to any applicable incentive mechanism, we retain the right to disallow recovery of any increase in pension costs, which has the effect (intentional or otherwise) of reducing other operating costs on a symmetric basis, and therefore where the application of the over-funding Principle would not be consistent with Principle Two (Attributable Regulated Fraction).

8. Subject to any applicable incentive mechanism, we would not recover from companies reductions in cash pension contributions which can be shown to be as a direct result of increased efficiency in employment management costs, for example as a result of outsourcing or moving staff from a current defined benefit to a lower-cost defined benefit or a defined contribution scheme. This does not apply to DPCR5, because there are specific sharing factors.

9. Subject to any applicable incentive mechanism, the difference between the ex ante allowances for pension administration costs and the PPF levy and the actual cash funding costs will be adjusted at the next price control. This will be subject to NWOs demonstrating that the costs are economic and efficient, e.g. that steps have been taken to mitigate, in particular, the risk-based element of the PPF levy and are comparable with appropriate comparators.

10. As noted under Principle Two, we will apply a revised regulatory fraction where there have been structural changes to a scheme in the price control period on a case-by-case basis. The element of the fraction related to movements in unfunded ERDCs will only be changed at a subsequent price control, except where through structural changes it can be clearly demonstrated that they have been fully funded.

11. Subject to any applicable incentive mechanism, increases in pension costs against allowances will therefore in general be recoverable from (or decreases recaptured for) consumers on an NPV-neutral basis.

Principle 6 - Severance - early retirement deficiency contributions (ERDCs)

Companies will also be expected to absorb any increase (and may retain the benefit of any decrease) in the cost of providing enhanced pension benefits granted under severance arrangements which have not been fully matched by increased contributions.

1.25. Since 31 March 2004, ERDCs, whether partially funded or totally unfunded, are a matter solely for shareholders.

1.26. The principle requires that an adjustment be made to the allowances for future price controls to exclude the impact of ERDCs resulting from redundancy and re-organisation, which have been offset by use of surpluses, rather than being funded by increased contributions.

1.27. For this purpose, it will be necessary to roll forward the previously agreed amounts of ERDCs arising prior to 1 April 2004. The methodology and the mechanism is set out in the pension deficit allocation methodology (included in the Pension RIGs).

Appendix 3 Stakeholder feedback on 2010 review

1.1. As part of the RIIO-ED1 Strategy consultation exercise, we sought respondents' views on the process and conduct of the previous review so that we could take their views into account in this forthcoming review.

1.2. Their views varied from those considering it was conducted well, or reasonably well to one who considered that the process was not followed and deviations were unacceptable.

1.3. Most respondents focussed on how future reviews should be conducted. These included having more meetings with companies, including the trustees to discuss their negotiation process, its outcomes and strategies; the need to clearly signpost the time period of each stage of review; and, that subsequent questions from us, following publication of our consultants report, should only be necessary to the extent that the scheme has been identified as an outlier.

1.4. One electricity distribution network operator considered that an external review is required because the last reasonableness review offered no opinions and the objective changed from assessing efficiency to assessing whether assumptions were reasonable. This chimed with a supplier whose view was that it was simplistic and not clear that it tested whether pension costs were competitive or efficient.

1.5. Responses from individual stakeholders may be found on our website.

Appendix 4: Additional background reference material

Energy Network Operator's Price Control Pension Costs – Regulatory Instructions and Guidance: Triennial Pension Reporting Pack supplements including pension deficit allocation methodology
https://www.ofgem.gov.uk/ofgem-publications/42761/nwo-triennial-pension-rigs-supplements-v1.0-12apr13.pdf
and
https://www.ofgem.gov.uk/ofgem-publications/42760/pension-rigs-data-tablesv1-01-30april2013.xlsx

22 June pension paper *Price Control Treatment of Network Operator Pension Costs Under Regulatory Principles* (ref 76/10)
https://www.ofgem.gov.uk/ofgem-publications/42784/pricecontroltreatmentofpensioncostsfinal.pdf

RIIO-T1 Price Control Financial Handbook – Electricity Transmission
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/NGFinHB.pdf

RIIO-T1 Price Control Financial Handbook – Gas Transmission
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/SD1_RIIO_GT1_Price_Control_Financial_Handbook.pdf

RIIO-GD1 Price Control Financial Handbook – Gas Transmission
http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/SD1_RIIO_GD1_Price_Control_Financial_Handbook.pdf

RIIO-GD1/T1 March 2011 Strategy decision document - Financial Issues supplement
https://www.ofgem.gov.uk/ofgem-publications/53838/t1decisionfinance.pdf

RIIO-GD1 Final Proposals – Finance and uncertainty
http://www.ofgem.gov.uk/Networks/GasDistr/RIIO-GD1/ConRes/Documents1/3_RIIOGD1_FP_Finance_and_uncertainty.pdf

RIIO-T1 Final Proposals - Finance
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/RIIO-T1/ConRes/Documents1/4_RIIOT1_FP_Finance_dec12.pdf

TPCR4 adapted rollover Final Proposals
http://www.ofgem.gov.uk/Networks/Trans/PriceControls/TPCR4Roll-over/Documents1/TPCR4_Rollover_Final_Proposals.pdf

DPCR5 Final Proposals - Finance
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf

RIIO-ED1 March 2013 Strategy decision document - Financial Issues supplement
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/riio-ed1/consultations/Documents1/RIIOED1DecFinancialIssues.pdf

RIGs glossary
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/DPCR5_Glossary_of_Terms_tracked[1].pdf

Electricity Distribution Final Proposals 144/09 - 7 December 2009
http://www.ofgem.gov.uk/Networks/ElecDist/PriceCntrls/DPCR5/Documents1/FP_1_Core%20document%20SS%20FINAL.pdf

Appendix 4: Additional background reference material

Electricity Distribution Price Control Review Final Proposals - Allowed revenue financial issues 147/09 – 7 December 2009
https://www.ofgem.gov.uk/ofgem-publications/46769/fp5financial-issues.pdf

Electricity Distribution Price Control Review Final Proposals - Financial Methodologies 148/09 – 7 December 2009
http://www.ofgem.gov.uk/Pages/MoreInformation.aspx?docid=372&refer=Networks/ElecDist/PriceCntrls/DPCR5

GAD Report 16 May 2012
https://www.ofgem.gov.uk/ofgem-publications/42780/gad-peniosn-report-16052012.pdf

GAD Report 20 July 2009 Price control pension principle: Analysis of questionnaire responses
http://www.ofgem.gov.uk/Networks/Documents1/Ofgem%20Report-finalsigned.pdf

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