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26th October 2015.

Matt Marshall
National Grid Gas Distribution
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Dear Matt,

Proposed Revision of the Shrinkage and Leakage Model in respect of the Interference Damage calculation applied for incentive purposes

Thank you for the opportunity to respond to the above consultation. This is a non-confidential response on behalf of the Centrica Group, excluding Centrica Storage. Though we understand why the proposed revision to the Interference Damage leakage calculation methodology may appear desirable, we are concerned about the appropriateness of the route through which this modification is being progressed and the potentially detrimental impact on customers. In particular we believe:

- **The proposed revision should be assessed as a part of the RIIO-GD1 mid-period review.**
- **The current approach to the estimation of volumes of gas lost through large gas release incidents should be retained for the calculation of shrinkage for the purposes of gas allocation.**

Assessment of the proposed revision at the mid-period review:

The Shrinkage Incentive was introduced to encourage the gas distribution network operators to minimise gas transport losses, which contribute to greenhouse gas emissions. In paragraph 2.17 of *RIIO-GD1: Final Proposals - Supporting Document – Outputs, Incentives and Innovation* document, Ofgem states:

> Shrinkage refers to gas which is lost from the transportation network. It is the dominant element of companies‟ business carbon footprint (BCF) and accounts for more than 0.75 per cent of GB green house gas emissions. For the current price control, we introduced an Environmental Emissions Incentive (EEI) and shrinkage allowance mechanism, which both provide GDNs with ***an incentive to minimise gas transport losses***[1]. [Emphasis added]

Further, in paragraph 2.22 of the same document, Ofgem outlines the improvement it expects the gas distribution network operators (GDNs) to deliver:

[1] Paragraph 2.17,
https://www.ofgem.gov.uk/sites/default/files/docs/2012/12/2_riiogd1_fp_outputsincentives_dec12_0.pdf

> Appendix 7 sets out in detail our proposed shrinkage and leakage targets (or baselines against which GDNs will receive reward or penalty). Relative to IP, we have ***increased the required improvements to gas transport losses*** for NGGD, SGN and WWU to reflect our increase in funding for mains replacement. Our revisions to companies‟ baselines means that we expect GDNs to deliver an improvement of around 15 to 20 per cent in ***gas transport losses*** over the RIIO GD1 period[2]. [Emphasis added]

Based on the above, we believe the policy objective underpinning the Shrinkage Incentive places focus on the reduction of gas transport losses.

The variability of volumes of gas lost through large gas release incidents can distort the gas distribution network operators (GDNs) enduring performance against their targets for the Shrinkage Incentive because, under the 'roller' mechanism, rewards are ultimately based on performance in a single year (the final year of the scheme). We recognise Ofgem invited the GDNs to propose modifications to mitigate this distortive effect:

> We recognise that revenues under the rolling incentive will be strongly influenced by companies‟ performance in the last year of RIIO-GD1. This performance could be influenced by factors outside GDNs control such as third party damage to gas mains. To mitigate for this, we welcome modifications to the shrinkage model (used by GDNs to calculate and report shrinkage and leakage) which ***addresses this issue whilst continuing to place the right incentives on companies*** to manage shrinkage and leakage.[3] [Emphasis added]

Currently, the volume of gas considered to be lost through a large release incident (an incident which causes gas releases in excess of 500kg) is either the volume estimated to be lost or is assumed to be 500kg if an estimate is not generated. The proposed revision to the Interference Damage leakage calculation methodology would obviate the need for such an estimate and set the volume of gas considered to be lost through each large release incident to 500kg.

Whilst the proposal may mitigate the distortive effect of the 'roller', we are concerned it may inherently result in a change in focus on the behaviours the Shrinkage Incentive was designed to encourage. As we discuss above, we believe the policy objective underpinning the Shrinkage Incentive places focus on the reduction of gas transport losses. However, the proposed revision appears to emphasise the reduction in the number of large release incidents:

> Therefore, we propose that the leakage volume calculation in the Interference Damage methodology be amended so as ***to be based always on the numbers of incidents*** at the existing predefined leakage rates. We believe this will not require an external audit of the leakage model as all calculations within

[2] Paragraph 2.22
https://www.ofgem.gov.uk/sites/default/files/docs/2012/12/2_riiogd1_fp_outputsincentives_dec12_0.pdf
[3] Paragraph 2.26,
https://www.ofgem.gov.uk/sites/default/files/docs/2012/12/2_riiogd1_fp_outputsincentives_dec12_0.pdf

will remain the same; the only change is the manner of the calculation of the source data.[4] [Emphasis added]

It should not be assumed that a reduction in the number of large release incidents will always result in reduced gas transport losses. The proposed revision could therefore have the unintended consequence of weakening of the incentive on the GDNs to reduce gas transport losses.

We also question whether modification of the Shrinkage and Leakage methodology is the appropriate route through which an amendment which may result in a change in the focus on the relevant behaviours agreed at the outset of the RIIO-GD1 price control should be progressed. We note the proposed revision, if adopted, would result in a reduction in risks to which the GDNs are exposed without a commensurate rebalancing of the risks and rewards between customers and GDNs. We also consider that revisions to target baselines should be subject to an appropriate level of scrutiny. In order to overcome these difficulties, we recommend it is more appropriate for this proposed revision to be assessed as a part of the RIIO GD1 mid-period review.

Calculation of shrinkage for incentive and gas allocation purposes:

We are also concerned about the consequential impacts the revision may have on other market elements. One such impact is the artificial reduction of shrinkage which, necessarily, results in an artificial increase in the volumes of 'unallocated' gas (UG). We note that the application of the proposed methodology to the 2010/11 data presented in the consultation reduces this component of shrinkage by 93%, compared to the current approach (see table below).

LDZ	Number of incidents	Leakage based on current approach (kg)	Leakage based on proposed approach (kg)	Revised volumes lost as a % of previous volumes lost
NE	3	32,971	1,500	4.5%
NO	4	34,069	2,000	5.9%
EM	1	519	500	96.3%
WM	1	1,000	500	50.0%
TOTAL		**68,559**	**4,500**	**6.6%**

As, the cost of UG is borne solely by the Small Supply Point sector, the proposal will systematically lead to an increase in the costs faced by these customers for instances in which the estimated volume of gas lost through any large incident exceeds 500kg. It is not appropriate to implement a change to the Shrinkage arrangements which have such a systematic, negative impact on the majority of customers. We recommend the proposal is revisited in order so as to avoid this negative impact and, given the wider implications for customers, it should be considered as a part of the mid-period review.

[4] Page 4 of the consultation document.

We hope you find our comments helpful. Answers to the questions included in the consultation are attached. Please do not hesitate to contact me if you have any questions.

Yours sincerely,

George Moran
Transmission and Distribution Forecasting Manager

Q1. Do you agree that it is appropriate to amend the leakage volume calculation in the Interference Damage methodology to be based always on the numbers of incidents at the existing predefined leakage rates?

We are unclear whether this will result in a deviation from the original policy objective the Shrinkage Incentive was designed to achieve and, as such, we recommend this is assessed as a part of the RIIO-GD1 mid-period review.

Q2. Do you agree that the proposed revisions to the incentive baselines in Appendix A are appropriate?

We are unable to comment on the appropriateness of the revised baselines because the methodology and the data employed to derive those baselines have not been presented in the consultation. We believe it would be beneficial for any revised baselines to be subjected to external scrutiny. Further, we do not believe retrospective changes to the 2015/16 baselines should be made.