


UNC Modification	At what stage is this document in the process?
<h1>UNC 0XXX:</h1> <p><i>(Code Administrator to issue reference)</i></p> <h2>The Shrinkage and Leakage Model Multiplication Factor</h2>	 <p>01 Modification</p> <p>02 Workgroup Report</p> <p>03 Draft Modification Report</p> <p>04 Final Modification Report</p>
<p>Purpose of Modification:</p> <p>To lower greenhouse gas emissions and customer bills, this mod establishes the Shrinkage and Leakage Model Multiplication Factor</p>	
<p>Next Steps:</p> <p>The Proposer recommends that this Modification should be: <i>(delete as appropriate)</i></p> <ul style="list-style-type: none">considered a material change and not subject to Self-Governancetreated as urgent and should proceed as such under a timetable agreed with the Authority <p>This Modification will be presented by the Proposer to the Panel on 20 April 2023 <i>(Code Administrator to provide date)</i>. The Panel will consider the Proposer's recommendation and determine the appropriate route.</p> <p><i>Please consider providing a presentation to introduce the Modification to the UNC Modification Panel which should be sent with your Modification to the Joint Office (a suggested template is available at: https://www.gasgovernance.co.uk/unc/templates)</i></p>	
<p>Impacted Parties:</p> <p>High: Consumers</p> <p>Medium: Distribution Networks Operators, Shippers, Suppliers</p>	
<p>Impacted Codes:</p> <p>UNC, Independent Gas Transporters UNC</p>	

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Timetable	
<i>Please provide proposer contacts and an indicative timeline. The Code Administrator will update the contents and provide any additional Specific Code Contacts.</i>	
Modification timetable: <i>(amend as appropriate)</i>	
Pre-Modification Discussed	dd month year
Date Modification Raised	dd month year
New Modification to be considered by Panel	dd month year
First Workgroup Meeting	dd month year
Workgroup Report to be presented to Panel	dd month year
Draft Modification Report issued for consultation	dd month year
Consultation Close-out for representations	dd month year
Final Modification Report available for Panel	dd month year
Modification Panel decision	dd month year

Any questions?
Contact: Joint Office of Gas Transporters
enquiries@gasgovernance.co.uk
0121 288 2107
Proposer: Insert name and Organisation
email address
telephone
Transporter: Insert name and Organisation
email address
telephone
Systems Provider: Xoserve
UKLink@xoserve.com
Other: Insert name
email address
telephone

Guidance on the use of this Template:

Please complete all sections unless specifically marked for the Code Administrator.

Green italic text is provided as guidance and should be removed before submission.

The Code Administrator is available to help and support the drafting of any modifications, including guidance on completion of this template and the wider modification process. Contact: enquiries@gasgovernance.co.uk or 0121 288 2107. Proposers may also wish to refer to the Modification Proposal Guidelines Document available at: <https://www.gasgovernance.co.uk/unc/templates>

1 Summary

Please provide a high level executive summary of the Modification proposed including drivers and benefits i.e. **what** is the identified defect/change in the existing code that needs to be rectified, **why** this change needs to be made, and **how**.

What

Provide a summary of **what** needs to be changed so that readers have an overview of what the identified defect is that needs to be rectified.

The purpose of this modification is enable the more accurate calculation of Shrinkage. As Shrinkage currently contributes to 1% of the UK's total greenhouse gas emissions, inaccuracies in the Shrinkage and Leakage Model (SLM) damage the environment. Studies show that the SLM is currently 30-35% understated. Underestimating Shrinkage also causes increases in Unidentified Gas. This has the direct impact of inflating customer bills.

To tackle this issue, this modification will create the Shrinkage and Leakage Model Multiplication Factor.

The multiplication factor will be set at 1.35. Transporters will be obliged to apply the multiplier to the volumes of Shrinkage estimated via the SLM prior to purchasing any gas as normal.

Why

Provide a summary of **why** this change should be made, so that readers have an overview of the impact if the change is not made.

This modification should be made to lower greenhouse gas emissions and customer bills. We are currently in a climate emergency, and as such also signed up to the COP 26's Global Methane Pledge to reduce the our output of methane by 30%. Further detail on the rationale can be found within 0828R.

How

Provide a summary of the proposed Solution so that readers have an overview of **how** you propose to address the defect.

The multiplication factor will be set at 1.35. Transporters will be obliged to apply the multiplier to the volumes of Shrinkage estimated via the SLM prior to purchasing any gas as normal.

2 Governance

Justification for Urgency

The modification:

(i) is likely to have a material effect on:

(aa) existing or future gas consumers; and

(bb) competition in the shipping, transportation or supply of gas conveyed through pipes or any commercial activities connected with the shipping, transportation or supply of gas conveyed through pipes; and

- (cc) the operation of one or more pipe-line system(s); and
 - (dd) matters relating to sustainable development, safety or security of supply, or the management of market or network emergencies; and
 - (ee) the uniform network code governance procedures or the network code modification procedures; and
- (ii) is unlikely to discriminate between different classes of parties to the uniform network code/relevant gas transporters, gas shippers or DN operators.

Requested Next Steps

This Modification should be treated as urgent and should proceed as such under a timetable agreed with the Authority.

This modification is likely to have a material impact on existing and future gas consumers, by more accurately allocating Shrinkage.

Any delay to the implementation of this modification will negatively impact the environment and customer bills.

3 Why Change?

Greenhouse gases (GHG) pose an existential threat. This is recognised by UK government in their [Net Zero Strategy](#):

“We are at a crossroads in our history. As we recover from the impact of the pandemic on our lives and livelihoods, we know that it will not be enough to go back to the way things were before. The science is clear, we know that human activity is changing our climate and that this will have a devastating impact on human lives, the economy, and the natural world – ranging from the extinction of some species and the melting of ice caps to extreme weather patterns threatening our homes, businesses, and communities.”

Methane is widely accepted to be 84x more potent than CO2 as a greenhouse gas. 16 TWh of methane that enters the gas distribution network is currently unaccounted for. Current rates of methane leaks are estimated off the back of the National Leakage Tests performed in 2002, which have been shown to be inaccurate. Inaccuracies in this test lead to deficient application of RIIO-GD2. This change seeks to remedy that deficiency.

4 Code Specific Matters

Please include any Code Related Documents or Guidance notes that are relevant. Weblinks are very helpful. Also, any specific analytical or assessment-related skills you believe would aid the assessment.

Reference Documents

This will amend Section N of the TPD

5 Solution

To create the Shrinkage and Leakage Model Multiplication Factor

6 Impacts & Other Considerations

Does this Modification impact a Significant Code Review (SCR) or other significant industry change projects, if so, how?

In the event there is an impact on an SCR, Proposers must confirm that they have Ofgem approval to proceed.

No

Consumer Impacts

Consumers: reduced gas leaks will reduce greenhouse gas emissions. As less gas would be lost to the atmosphere, wholesale gas costs, Shrinkage costs, and UIG costs will be reduced, ultimately lowering bills.

This aligns with Ofgem’s strategic vision:

- facilitating net zero
- energy consumers receiving good value energy services
- minimise costs
- a data-enabled energy sector.

What is the current consumer experience and what would the new consumer experience be?

Direct bill costs: all consumer groups (Domestic Consumers; Small non-domestic Consumers; Large non-domestic Consumers; Very Large Consumers) currently pay for gas leaks at a rate that could be 35% higher than is currently incentivised under RIIO-GD2. This mod would ensure that GDNs are appropriately incentivised, thereby reducing consumer costs.

Environmental cost: the environmental impact of gas leaks to all consumer groups is exponentially higher. The knock on impacts of greenhouse gases on the climate crisis are much higher. This mod would ensure that GDNs are appropriately incentivised, thereby reducing the environmental impact of natural gas leaks in the UK.

6.1.1.1 Impact of the change on Consumer Benefit Areas:	
6.1.1.2 Area	Identified impact
Improved safety and reliability <i>Will this change mean that the energy system can operate more safely and reliably now and in the future in a way that benefits end consumers?</i>	Positive

<p><i>This area would relate to changes which balance the system safely, securely and at optimum cost, particularly for consumers in vulnerable situations.</i></p> <p>This change would mean that the energy system can operate more safely and reliably in the future in a way that benefits end consumers. Gas leaks are dangerous - as this mod would reduce gas leaks, it would also reduce the inherent danger of gas leaks.</p>	
<p>Lower bills than would otherwise be the case</p> <p><i>Will this change lower consumers' bills by controlling, reducing, and optimising spend, for example on balancing and operating the system?</i></p> <p><i>This area would relate to changes that are likely to benefit end consumers. This could include any change where it has been demonstrated that it could lower bills for end consumers. It would also consider changes which introduce flexibility across the market to flow energy at the most efficient profile, lower operational costs. and make sure GB consumers can access the cheapest sources of energy.</i></p> <p><i>If possible, this section should include any quantifiable benefits.</i></p> <p><i>What costs or benefits will pass through to consumers?</i></p> <p>Through better incentivisation under RII0-GD2, this will reduce costs attributable to gas lost from the system and knock on environmental costs.</p>	<p>Positive</p>
<p>Reduced environmental damage</p> <p><i>Will this Modification Proposal support:</i></p> <ul style="list-style-type: none"> • <i>a reduction in Greenhouse Gas emissions?</i> • <i>new providers and technologies?</i> • <i>a move to hydrogen or lower greenhouse gases?</i> • <i>the journey toward statutory net-zero targets?</i> • <i>decarbonisation?</i> <p><i>This area would relate to changes which demonstrate innovative work to design solutions which ensure the system can operate in an environmentally sustainable way both now and in the future.</i></p> <p><i>Proposers must provide the impact (if any) of the Modification proposed on Greenhouse Gas Emissions, if it is likely to be material. The Proposer shall assess the quantifiable impact of such Modification in</i></p>	<p>Positive</p>

<p><i>accordance with the Authority's Carbon Costs Guidance</i></p> <p>This will reduce greenhouse gas emissions through reducing natural gas leaks, supporting the journey to net-zero. Natural gas is a potent greenhouse gas that is 84x more potent than CO2. Approximately 16 TWh of natural gas were lost from the total system in 21/22. It will support the decoupling of leak estimation from party bias. Via accurate calculation of the environmental impact of gas leaks, it will support decisions on how to move away from GHG-intensive energy supply in the UK.</p>	
<p>Improved quality of service</p> <p><i>This area would focus on demonstrating why and how the change can improve the quality of service for some or all end consumers. Improved service quality ultimately benefits the end consumer due to interactions in the value chains across the industry being more seamless, efficient, and effective.</i></p> <p>Increases effectiveness of RIIO-GD2</p>	Positive
<p>Benefits for society as a whole</p> <p><i>This area would relate to any other identified changes to society, such as jobs or the economy.</i></p> <p>As above: this modification would lower costs and GHG emissions. The economic impacts of climate change are detailed within the linked government webpage.</p>	Positive

6.1.1.3 Cross-Code Impacts

Please identify any other impacted energy code – e.g. iGT UNC or SPAA a full list is available in the CACoP (Ofgem) - and the extent of those impacts e.g. a similar Modification has or will need to be raised in another Code. It is likely that Panel will request joint Workgroup meetings.

Explain how you intend to address any consequential Cross Code impacts.

IGTs may need to have an equivalent modification

6.1.1.4 EU Code Impacts

Please identify any impacted EU energy code

N/a

6.1.1.5 Central Systems Impacts

6.1.1.6 *Proposers must provide their view of the impacts on central systems (inc. Gemini and UK Link) that may be affected; this will be supported by further input from the Central Data Services Provider (Xoserve) later in the process. If 'none', please also explain.*

Explain how you intend to address any consequential Data Services Contract impacts.

A new charge to cover ISE costs may need to be considered.

Relevant Objectives

6.1.1.7 Impact of the Modification on the Transporters' Relevant Objectives:

Relevant Objective	Identified impact
Efficient and economic operation of the pipe-line system.	Positive
Coordinated, efficient and economic operation of (i) the combined pipe-line system, and/ or (ii) the pipe-line system of one or more other relevant gas transporters.	Positive
Efficient discharge of the licensee's obligations.	Positive
Securing of effective competition: (i) between relevant shippers; (ii) between relevant suppliers; and/or (iii) between DN operators (who have entered into transportation arrangements with other relevant gas transporters) and relevant shippers.	Neutral
Provision of reasonable economic incentives for relevant suppliers to secure that the domestic customer supply security standards... are satisfied as respects the availability of gas to their domestic customers.	Positive
Promotion of efficiency in the implementation and administration of the Code.	Neutral
Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	Positive

AND/OR, for Section Y (Charging Methodology) Modifications

6.1.1.8 Impact of the Modification on the Transporters' Relevant Charging Methodology Objectives:

Relevant Objective	Identified impact
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Save in so far as paragraphs (aa) or (d) apply, that compliance with the charging methodology results in charges which reflect the costs incurred by the licensee in its transportation business;	Positive
That, in so far as prices in respect of transportation arrangements are established by auction, either: 1. no reserve price is applied, or 2. that reserve price is set at a level - (I) best calculated to promote efficiency and avoid undue preference in the supply of transportation services; and (II) best calculated to promote competition between gas suppliers and between gas shippers;	Positive
That, so far as is consistent with sub-paragraph (a), the charging methodology properly takes account of developments in the transportation business;	Positive
That, so far as is consistent with sub-paragraphs (a) and (b), compliance with the charging methodology facilitates effective competition between gas shippers and between gas suppliers; and	Positive
That the charging methodology reflects any alternative arrangements put in place in accordance with a determination made by the Secretary of State under paragraph 2A(a) of Standard Special Condition A27 (Disposal of Assets).	Positive
Compliance with the Regulation and any relevant legally binding decisions of the European Commission and/or the Agency for the Co-operation of Energy Regulators.	Positive

7 Implementation

Implementation should be as soon as possible after approval by the Authority.

8 Legal Text

See the Framework for the Appointment of an Independent Shrinkage Expert

9 Recommendations

Proposer's Recommendation to Panel

Panel is asked to:

- Agree that Authority Direction should apply

Document Control to be removed upon completion of the template.

Document Control Sheet

Document ID Stage 01	Title Stage 01 UNC Standard Modification Template	Publication Date 24 May 2021
Version 4.0	Prepared by Helen Cuin	Date Prepared 04 November 2020
Effective Date 24 May 2021	Reviewed by Joint Office and Panel	Date Reviewed 20 May 2021
	Approved by Panel	Date Approved 20 May 2021

Revision History

Version	Date	Review frequency	Reason for update
3.0	02 May 2019	TBC	Current published Version
3.8	04 November 2020	TBC	CACoP insertion of Consumer Benefit Areas Joint Office suggested changes and insertion of Document Control Sheet.
4.0	20 May 2021	TBC	Panel approval following insertion of Consumer Benefit Areas