

# Uniform Network Code (UNC) 0843: Establishing the Independent Shrinkage Charge and the Independent Shrinkage Expert (UNC0843)

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<b>Decision:</b>	The Authority <sup>1</sup> has decided to reject this modification <sup>2</sup>
<b>Target audience:</b>	UNC Panel, Parties to the UNC and other interested parties
<b>Date of publication:</b>	15 April 2026

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## Background

Lost gas can be defined as the difference between all measured inputs and outputs of gas volumes on the Local Distribution Zones ('LDZs'). There are two mechanisms through which total lost gas is typically accounted for: Shrinkage<sup>3</sup> and Unidentified Gas ('UIG').<sup>4</sup> The volume of lost gas is first allocated to Shrinkage. This refers to gas lost on the LDZ system associated with leakage, theft of gas and gas used in the operation of the LDZ networks, also known as own-use gas. Any residual amount of lost gas that is not accounted for as Shrinkage is then accounted to UIG.

In accordance with the UNC, Gas Distribution Networks ('GDNs') forecast and account for Shrinkage via a Shrinkage and Leakage Model ('SLM').<sup>5</sup> The model was introduced over 20 years ago, with the latest version 1.4 updated and approved by Ofgem in September 2014.<sup>6</sup>

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<sup>1</sup> References to the "Authority", "Ofgem", "we" and "our" are used interchangeably in this document. The Authority refers to GEMA, the Gas and Electricity Markets Authority. The Office of Gas and Electricity Markets (Ofgem) supports GEMA in its day-to-day work. This decision is made by or on behalf of GEMA.

<sup>2</sup> This document is notice of the reasons for this decision as required by section 38A of the Gas Act 1986.

<sup>3</sup> 'Shrinkage' is defined and dealt with in Uniform Network Code TPD Section N – Shrinkage.

<sup>4</sup> 'Unidentified Gas' is defined in Uniform Network Code TPD H2.6.1.

<sup>5</sup> Special Condition 4.4 Part C: Maintenance of the Shrinkage and Leakage Model.

<sup>6</sup> This incorporated modifications to the calculation of leakage attributable to low pressure services. See [Decision letter regarding modification number four to the Shrinkage and Leakage Mode | Ofgem](#)

The cost of Shrinkage is passed on from GDNs to Shippers via LDZ transportation charges. The cost of UIG is separately passed onto Shippers and apportioned to different Shippers based on the Supply Meter Points to which they are each registered by an independent Allocation of UIG Expert ('AUGE').<sup>7</sup>

### **The modification proposal**

On 3 September 2025, OVO Energy ('The Proposer') raised UNC modification 0843: 'Establishing the Independent Shrinkage Charge and the Independent Shrinkage Expert'. The Proposer believes that Shrinkage volumes have been historically under-reported by GDNs due to inaccurate leakage calculations by the SLM. They cite various independent studies as evidence, in particular a London-based study by Imperial College London that suggests emissions could be underreported by 30-35%. As a result, the under-reported amount of Shrinkage is misallocated to the UIG category. The Proposer argues that this misallocation demonstrates that Shrinkage volumes are consistently underestimated. The Proposer claims that this would undermine RIIO incentives that are intended to incentivise the reduction of gas lost on the networks. Further, The Proposer claims that underestimating Shrinkage directly increases UIG, and as a result inflates customer bills.

The proposal intends to improve the accuracy of Shrinkage reporting and allocation by introducing the role of an Independent Shrinkage Expert ('ISE'). The ISE would establish an Independent Shrinkage Model ('ISM') and Independent Shrinkage Model Methodology ('ISMM') to calculate its own Shrinkage forecasts and actual figures. This would serve as an independent mechanism to correct any inaccurate Shrinkage accounting by the GDNs and the SLM. If the ISE reported a greater volume of Shrinkage than the existing model, the difference would be assigned to the GDNs via an Independent Shrinkage Charge ('ISC'). The

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<sup>7</sup> For more information on the AUGE, see Uniform Network Code TPD E.9 Unidentified Gas – Allocation Factors, and the Joint Office website: [AUG Information 2021 to 2026 | Joint Office of Gas Transporters - Gas Governance](#)

GDNs would be obligated to purchase this additional volume of gas to cover the ISC. The ISCs would be subject to approval by the Authority.

The Proposer argues that the proposal would better facilitate UNC Relevant Objectives ('ROs') (e) and (g). The Proposer further states that increased accounting accuracy of Shrinkage volumes and GB's gas inventories will better facilitate security of supply and thus better facilitate RO (e). The Proposer also claims that accurate cost allocation of Shrinkage will incentivise GDNs to reduce gas emissions. In turn, this would better facilitate the fulfilment of the UK's Net Zero legal obligations, which the Proposer claims are covered by RO (g).

### **UNC Panel<sup>8</sup> recommendation**

At the UNC Panel meeting on 21 August 2025, a majority of the UNC Panel considered that UNC0843 would better facilitate the UNC Relevant Objectives, and the Panel therefore recommended its approval, with 8 out of 14 Panel Members voting in favour of implementation of this modification proposal.

The Panel Members had an extensive discussion on the impact of this modification proposal on ROs and considered RO (e) and (g), as well as (a) and (d). There was a difference of opinion on which ROs were better facilitated by this modification amongst those who supported it.

### **Our decision**

We have considered the issues raised by the modification proposal and the Final Modification Report ('FMR') dated 03 September 2025. We have considered the responses to

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<sup>8</sup> The UNC Panel is established and constituted from time to time pursuant to and in accordance with the UNC Modification Rules.

the industry consultation on UNC0843 which are attached to the FMR.<sup>9</sup> We have concluded that:

- implementation of the modification proposal will not better facilitate the achievement of the relevant objectives of the UNC<sup>10</sup>
- directing that the modification be made would not be consistent with our principal objective and statutory duties.<sup>11</sup>

### **Reasons for our decision**

We consider this modification proposal will not better facilitate UNC objective (a) and have a neutral impact on UNC objectives (d), (e) and (g).

The UNC Panel invited interested parties to respond to a UNC0843 consultation on 16 May 2025. Of the 15 representations received, 6 supported implementation and 9 were not in support. Consultation respondents in support of the proposal raised concerns that a review of the SLM was overdue and argued that the proposal would improve the targeted allocation of Shrinkage costs. Consultation respondents who opposed the proposal stated that it would introduce unnecessary complexity, duplication and cost into the Shrinkage allocation process and considered that it would be more cost effective to review the existing mechanism. In terms of implementation, we note that Panel members and consultation responses also highlighted that the proposal would require a licence change to enable GDNs to buy gas to cover the ISC.

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<sup>9</sup> UNC modification proposals, modification reports and representations can be viewed on the Joint Office of Gas Transporters website at [Joint Office of Gas Transporters](#)

<sup>10</sup> As set out in Standard Special Condition A11(1) of the Gas Transporters Licence, see: [Licences and licence conditions | Ofgem](#)

<sup>11</sup> The Authority's statutory duties are wider than matters which the Panel must take into consideration and are detailed mainly in the Gas Act 1986 as amended.

***(a) the efficient and economic operation of the pipe-line system to which this licence relates***

Some Panel members and consultation respondents considered the modification would have a positive impact on RO (a), stating that the modification would increase the accuracy of Shrinkage accounting. As such, this would improve the targeted allocation of risks and costs of Shrinkage to the GDN parties responsible for managing the SLM.

We consider that this proposal would have a negative impact on RO (a). The proposal does not provide quantitative evidence on the cost and benefit of the change, so we have made a principles-based assessment.

In principle, we agree that accurate Shrinkage reporting and cost allocation better facilitates the efficient operation of the gas pipeline system. However, we have concerns over introducing additional complexity and duplication into the Shrinkage LDZ process, whereby the proposed model would operate in parallel to the existing SLM model. The introduction of a second layer of governance that requires Authority oversight and approval would introduce additional procedural time and cost. This would increase the regulatory burden on the system. Further, it would be more efficient for any prospective innovations in leakage detection and accounting to be adopted under a single model and governance process. As an example, the on-going Digital Platform for Leakage Analytics ('DPLA') project may provide such innovations and improvements.<sup>12</sup> At this stage, we believe that it would be more appropriate and cost-effective for the industry to tackle Shrinkage by continuing to develop and implement innovative projects such as the DPLA, without introducing an independent expert and model alongside them.

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<sup>12</sup> The development phase of the DPLA project was funded by Ofgem's Strategic Innovation Fund (SIF). The project sets out to utilise Advanced Leakage Detection (ALD) technologies to identify, locate and predict leaks in the Gas Distribution Network, and a staged roll out is expected across GD3.

Some Panel Members and consultation respondents have raised concerns that if the ISC was borne by GDN's bottom line, it would risk their financial health and investibility which would be unsustainable for the sector. In contrast, some have also observed that if the ISC was treated as another Shrinkage cost and a pass-through item, the cost would be reallocated from UIG to Shrinkage and simply passed onto Shippers and consumers in addition to the operational cost of the ISE.

On the first point, we acknowledge that any additional cost borne by the sector should be carefully considered and viewed as part of the wider RIIO incentive framework. On the second point, we agree that if the ISC was passed on as another Shrinkage cost, it would lessen the proposal's effectiveness to incentivise the GDNs to improve Shrinkage reporting. In effect, the proposal may simply amount to redistributing the costs of lost gas between the relevant accounting categories, while introducing additional network costs from the operation of the ISE.

***(d) so far as is consistent with sub-paragraphs (a) to (c) the 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***

The Panel was split on whether this proposal would better facilitate RO (d). Some Panel Members agreed that implementation would have a positive impact due to a reduction in costs to Shippers, which would in turn reduce consumers bills. Other Panel Members disagreed, stating any benefit may not be passed on to consumers.

We consider that this proposal will have a neutral impact on RO (d).

The proposal does not discuss or provide evidence on whether a reduction in UIG costs would boost competition between Shippers. In principle, we agree that a reduction in UIG costs may better facilitate competition between Shippers in a competitive market by reducing fixed overheads. However, the extent to which any savings would be reflected in Shipper charges is uncertain. Furthermore, if the cost of the ISC is passed on with other Shrinkage costs, the reduction in UIG costs would be offset by an increase in Transportation charges levied on Shippers. The allocation of how the ISC is distributed is not commented on by the proposal and therefore our view is based on a principles-based assessment.

***(e) so far as is consistent with sub-paragraphs (a) to (d), the 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***

The Proposer believes that the proposal will increase security in gas supply by improving the accounting of Shrinkage and GB's gas inventories. Therefore, they consider that the proposal would better facilitate RO (e). The views of the Panel Members were mixed, with some agreeing with the Proposer's view and others noting that this RO is not impacted by this modification.

We consider that the proposal has a neutral impact on RO (e).

The proposal intends to improve the targeted allocation costs of Shrinkage to the GDN parties responsible for managing the SLM. In turn, this is intended to incentivise GDNs to reduce emissions. However, RO (e) is concerned with the provision of economic incentives for Suppliers in order to secure that gas supplies meet consumer demand, and as such does

not apply to GDNs.<sup>13</sup> The Authority welcomes wider considerations presented by the proposal but does not consider that the proposal interacts with this RO as defined.

***(g) 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***

The Proposer believes that the proposal will facilitate the UK's Net Zero goals and therefore aid the fulfilment of the UK's Net Zero legal obligations, which they claim are covered by RO (g). Some Panel Members and consultation respondents believed that RO (g) relates to conditions for access to the national gas transmission networks and is therefore not relevant for Net Zero and thus not relevant for this modification.

We consider that the proposal has a neutral impact on the UNC RO (g).

The Regulation referenced in RO (g) is linked to Regulation 2009/715/EC of the European Parliament and of the Council of 13 July 2009 on conditions for access to the national gas transmission networks. This can be found in the Gas Transporter licence condition Standard Special Condition (SSC) A3. The Authority welcomes the wider considerations presented by the proposal but does not consider that the proposal interacts with the Regulation as defined.

***Our principal objectives and statutory duties***

The Authority's principal objective is to protect the interests of existing and future consumers in relation to gas conveyed through pipes and electricity conveyed by distribution or transmission systems. Those interests include the reduction of gas-supply emissions of targeted greenhouse gases and associated costs.

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<sup>13</sup> 'Customer supply security standards' are defined in Standard Special Condition A11.1A: Network Code and Uniform Network Code.

## *Consumer Interest*

We have carried out analysis to consider the cost impact of the proposal on consumers.<sup>14</sup> Our analysis indicates that the introduction of the ISE would result in a net increase in costs to consumers. The cost of funding the implementation of the ISE, estimated at £2.4m, would be passed through to consumers.<sup>15</sup> In addition, consumers would bear the cost of any net positive difference between the ISC charge and the reduction in UIG. Under a range of modelling improvement scenarios (10%, 20%, 30%), we have tested the sensitivity of the assumption that an increase in Shrinkage would be fully offset by a reduction in UIG costs and therefore result in a cost neutral impact on consumers.<sup>16</sup> Given the realistic assumption that there would not be a 100% offset (or ‘reallocation’) of costs between Shrinkage and UIG due to modelling and data limitations, our analysis demonstrates that the cost increase to consumers would be more than the minimum implementation cost of the ISE.

Our analysis shows that for FY 2024/25 the consumer cost ranges from the minimum cost of £2.4m (100% reallocation across all improvement modelling scenarios, as consumers only pay for the implementation cost); to the maximum cost of £23.06m (0% reallocation under the 30% improvement scenario).

For Ofgem to consider approval of this modification, any additional cost to the consumer would need to be substantially offset by benefits, such as a decrease in emissions or Shrinkage costs. The proposal does not provide the supporting evidence or sufficient assurance in this regard. As such, we consider that approving this modification would not be in the consumer interest.

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<sup>14</sup> Please see the Appendix to this letter for the full analysis report.

<sup>15</sup> This cost estimate is provided by Xoserve for illustrative purposes on the basis of previous procurement and operation costs to set up the Allocation of UIG Expert (AUGE). For more details see the accompanying Appendix to this letter.

<sup>16</sup> The analysis includes the reasonable assumptions that the cost of the ISC would be passed on to consumers with other Shrinkage costs. Further, any reductions in UIG would be passed on as savings to consumers. For more details see the accompanying Appendix to this letter.

### *Security of Supply*

The Proposer claims that increasing the accounting accuracy of GB's gas inventories will improve security of supply, which is supported by some Panel Members. Whilst we agree that the accurate accounting of gas inventories is important in the operation of gas transportation, we disagree that this proposal would materially benefit GB's energy security. This proposal focuses on improving the accuracy of cost allocation between Shrinkage and UIG, as well as improving the targeting of costs to the appropriate parties. In turn, this is intended to incentivise the reduction of emissions. We consider the remit of the proposal as too limited to have a material impact on national energy security.

### *Net Zero*

The Proposer believes that accurate cost allocation of Shrinkage will incentivise Gas Transporters to reduce emissions, which is supported by some Panel Members and consultation respondents. However, some Panel members and consultation respondents argue that in order to better inform interventions and for emissions to be reduced, the ISE would need to provide the Gas Transporters with new locational and granular data that they do not already have access to, but the availability of such data is not guaranteed by the proposal. The Proposer notes that the ISE would need to provide actionable data where available. The proposal suggests some possible methodologies the ISE could use to find useful data, but states that it would be within the purview of the prospective ISE to decide and develop its approach.

As an ISE methodology is not examined by the proposal, we are limited in our ability to take a view on its efficacy towards Net Zero. In principle, we agree that improving the accuracy of Shrinkage reporting benefits measures towards reducing lost gas and contributing to Net

Zero targets. However, we also agree with stakeholders that in practice new data would need to be provided to have a material and direct impact on reducing emissions. It is not clear that the proposal would provide such actionable data or result in a direct impact on reducing emissions.

## **Our recommendation**

We acknowledge the concerns over the accuracy of the SLM expressed by some stakeholders. The Proposer cites a range of studies as evidence of SLM error, most notably, a study by Imperial College London that quotes possible unreported SLM leakage of 30-35% in London. The GDNs have challenged this evidence as either irrelevant or not representative of the full GB LDZ system. Overall, the evidence tabled is not sufficiently comprehensive to illustrate the position of SLM accuracy across GB. However, we consider that these concerns warrant a review of the SLM calculations for leakage, which have not been updated since 2014. The Licence accommodates and requires improvement to the SLM.<sup>17</sup> We urge GDNs to work with the industry to expedite a thorough review of the SLM that aligns with the DPLA project and seeks to improve trust in the Shrinkage accounting process. Given known issues in relation to Shrinkage accuracy, we would expect such a review to commence no later than the first 6 months of FY 2026/27.

The reduction of emissions on the gas network is a key focus for Ofgem, one which we are progressing through the RIIO price control framework, including providing support for relevant industry projects. We also launched a review of Shrinkage volumes on the National Transmission System (NTS) in November 2025<sup>18</sup>, a summary of the responses to which we will be publishing in the near future. We look forward to further engagement with

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<sup>17</sup> Special Condition 4.4 Part D: Modification of the Shrinkage And Leakage Model and methodology

<sup>18</sup> [A review of shrinkage volumes on the National Transmission System \(NTS\) | Ofgem](#)

stakeholders as we continue our work towards developing a more efficient and green energy system.

### **Decision notice**

In accordance with Standard Special Condition A11 of the Gas Transporters Licence, the Authority has decided that modification proposal UNC 0843: *‘Establishing the Independent Shrinkage Charge and the Independent Shrinkage Expert’* should not be made.

**William Duff**

**Head of Gas Systems and Operation (GSO)**

Signed on behalf of the Authority and authorised for that purpose