

# LDZ Energy Loss Final Proposals

Formula year 2019/20

February 2019



REPORTS

 WALES & WEST  
UTILITIES

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# 1 LDZ Energy Loss Proposals for Formula Year 2019/20

## Purpose of Proposal

This paper presents the Energy Loss through transportation as proposed by Wales & West Utilities (WWU) from the respective Local Distribution Zones (LDZ) for the Formula year 2019/20. This paper will describe the Energy Losses from the various factors within each LDZ detailing the Energy Losses associated to each component. This proposal will form the basis for WWU's LDZ Shrinkage Gas procurement during the 2019/20 formula year.

Users (defined as Distribution Network operators, gas shippers and other interested parties) have had the opportunity to comment on the LDZ Shrinkage Quantity Initial Proposals for Formula Year 2019/20 issued December 2018<sup>1</sup>. Taking into consideration any representations from Users, WWU will publish a final report by the 1<sup>st</sup> of March 2019.

## Summary of Proposal

The LDZ Energy Loss reflects the losses associated with leakage, theft of gas and gas used in the operation of the system. Details of how these quantities have been determined are provided later in this paper.

Fugitive emissions of gas (leakage and venting) have been estimated using forecast mains and asset populations as at 31<sup>st</sup> March 2019. WWU has considered Own Use Gas (OUG) and Theft of Gas (ToG) and propose using the same factor as previous years. The Energy Loss for 2019/20 is estimated at 0.54% of total demand through the WWU system.



**Figure 1: Breakdown of Energy Loss by LDZ**

<sup>1</sup> LDZ Shrinkage Quantity Initial Proposals December 2018 February 2019

## 2 Component Analysis

WWU's Energy Loss proposals are forecasted by calculating the forecasted Shrinkage for the respective Formula Year. The below diagram provides a high level breakdown of Shrinkage gas with values forecasted for 2019/20.

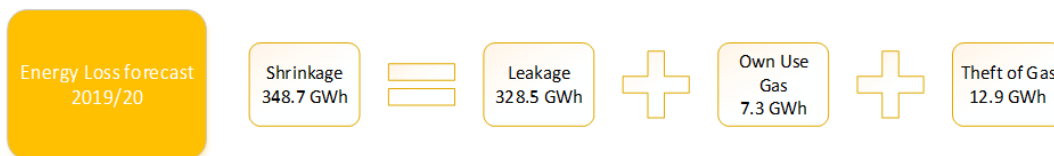


Figure 2: Breakdown of Shrinkage

### Leakage

LP Mains Leakage represents the largest component of the total LDZ Energy loss at 55.5%. A component breakdown of Leakage with the percentage impact each one has is illustrated below.

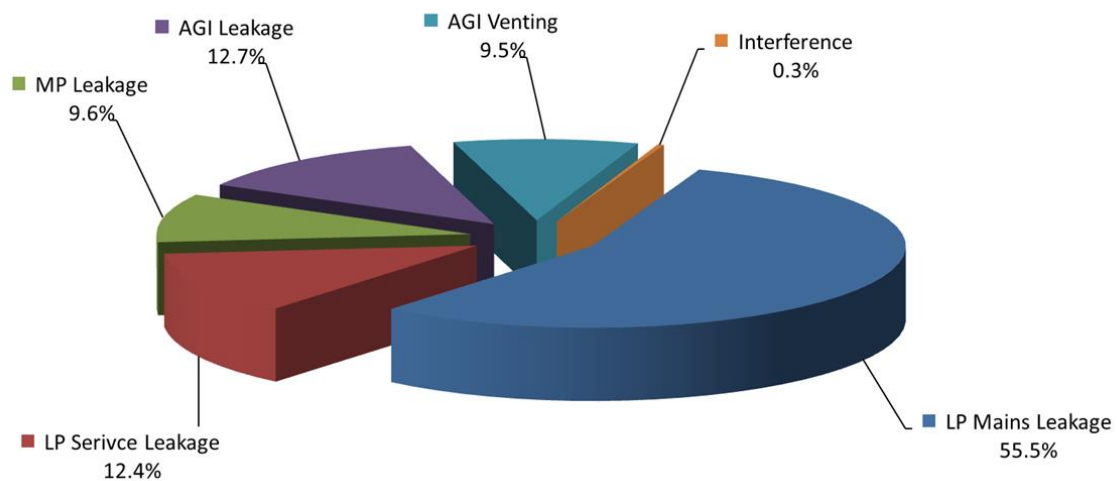


Figure 3: Components of Leakage

For the purpose of this analysis, leakage is split into three categories which are:

- Distribution Mains which is a feature of normal system operation (LP Mains Leakage, MP Leakage and LP Service Leakage)
- Above Ground Installations (AGI's) which includes the routine venting of control equipment (AGI Leakage and AGI Venting)
- Interference which include gas lost as a result of interference damage and broken mains. These losses are not continuous; they are caused by specific events.

### 3 LDZ Energy Loss Summary

The proposed LDZ Energy Loss for the Formula Year 2019/20 is presented in the following table.

LDZ	Leakage (GWh)	Own Use Gas (GWh)	Theft of Gas (GWh)	Proposed Shrinkage Quantity 2019/20 (GWh)
WN	41.8	0.7	1.2	<b>43.7</b>
WS	92.3	3.3	5.8	<b>101.4</b>
SW	194.5	3.3	5.9	<b>203.7</b>
<b>Total</b>	<b>328.5</b>	<b>7.3</b>	<b>12.9</b>	<b>348.7</b>

### 4 Extent to which the Proposal would better facilitate the relevant objectives

This proposal provides a robust estimate of LDZ Energy Loss for the Formula Year 2019/20. The gas usage and loss in transportation within the LDZs will be reflective of actual conditions. This in turn facilitates the achievement of efficient and economic operation of the system through effective targeting of costs.

It will also lead to accurate targeting of costs to Users through the Reconciliation by Difference process and this is consistent with securing effective competition.

### 5 The implications for Wales & West Utilities of implementing the Proposal including:

**a) Implications for operation of the System:**

We are not aware of any such implications that would result from implementing this proposal.

**b) Development and capital cost and operating cost implications:**

The proposed LDZ Energy Loss (which has been prepared without Pressure and Temperature correction) leads to a fair allocation of operating costs between LDZ systems.

**c) Extent to which it is appropriate for Wales & West Utilities to recover the costs, and proposal for the most appropriate way for Wales & West Utilities to recover the costs:**

It is appropriate for each LDZ to incur a share of the overall Shrinkage Energy cost dependent upon the actual shrinkage in that LDZ.

**d) Analysis of the consequences (if any) this proposal would have on price regulation**

Shrinkage gas is a very small component of Unidentified Gas (UIG) and therefore would have an impact on the allocation of UIG.

### 6 The implications of implementing the Proposal for Users

This proposal improves the equitability and accuracy of cost targeting across all Users.

## 7 Analysis of any advantages or disadvantages on implementation of the Proposal

**Advantages:** Representation of the actual system usage and losses relevant to current network composition.

**Disadvantages:** Purchasing shrinkage gas on a flat daily profile throughout the year may cause some very minor inconsistencies on UIG. During summer where gas demand is lower, Shrinkage gas would make up a greater proportion of UIG whilst during the winter, the proportion would be smaller.

## 8 Summary of the representations (to the extent that the import of those representations are not reflected elsewhere in the Proposal)

Users have had the opportunity to respond to these proposals. No representations were received with respect to Wales and West Utilities LDZ Shrinkage Quantities Initial Proposals for Formula Year 2019/20

## 9 Programme of works required as a consequence of implementing the Proposal

The only required modification is to the LDZ Energy Loss values entered into GEMINI.

## 10 Proposed implementation timetable (including timetable for any necessary information system changes)

Users have until 15<sup>th</sup> March 2019 to request that Ofgem issues a Standard Special Condition A11 (18) disapproval of this proposal. This provision is in the UNC Section N 3.1.8.

If no disapproval notice is issued beforehand, it will be our intention to implement revised LDZ Energy Loss from 05:00 hrs on 1<sup>st</sup> April 2019.

## 11 Recommendation concerning the implementation of the Proposal

We recommend the proposed LDZ Energy Loss be implemented with effect from 05:00 hrs on 1<sup>st</sup> April 2019.

## 12 Wales & West Utilities Proposal

This report contains our final proposal for the LDZ Energy Loss for the Formula Year 2019/20.