

## UNC Shrinkage Forum Minutes Wednesday 23 November 2022 via Microsoft Teams

### Attendees

Rebecca Hailes (Chair)	(RHa)	Joint Office
Vera Li (Secretary)	(HB)	Joint Office
Anthony Perchard	(AP)	DNV GL
Colin Wainwright	(CW)	SGN
David Mitchell	(DC)	SGN
David Morley	(DM)	Ovo Energy
Emma Buckton	(EB)	Northern Gas Networks
Gregory Edwards	(GE)	Centrica
Helen Cuin	(HC)	Joint Office
Ian Dunstan	(ID)	Wales & West Utilities
John Trounson	(JT)	BU-UK
Julie Chou	(JC)	Wales & West Utilities
Magali Aurand	(MA)	Guidehouse (Cadent Gas)
Matt Marshall	(MM)	Cadent Gas
Paul O'Toole	(POT)	Northern Gas Networks
Peter Morgan	(PM)	SGN
Sally Hardman	(SHa)	SGN
Simon Holden	(SHo)	IADS
Steve Mulinganie	(SM)	SEFE Energy Ltd
Tom Stuart	(TS)	Wales & West Utilities
Yvonne Reid-Healy	(YRH)	Joint Office

*Shrinkage Forum meetings will be quorate where all four Distribution Networks and at least two Shippers are in attendance*

*Please note these minutes do not replicate detailed content provided within the presentation slides, therefore it is recommended that the published presentation material is reviewed in conjunction with these minutes. Copies of papers are available at: <https://www.gasgovernance.co.uk/SF/231122>*

### 1.0 Introduction and Status Review

Rebecca Hailes (RHa) welcomed all parties to the meeting.

#### 1.1. Quoracy Status

The meeting was deemed to be quorate.

#### 1.2. Approval of Minutes (21 September 2022)

The minutes of the previous meeting were approved.

#### 1.3. Review of Outstanding Actions

**Action 0101:** Joint Office (YRH) to speak to the incumbent Chair about how or what the Joint Office can do to engage Shippers and understand their commitment to future Shrinkage Forum meetings and discussions.

**Update:** RHa confirmed YRH had convened meetings with a number of parties to discuss their commitments to Shrinkage Forum. YRH will continue engagements with parties. **Closed**

**Action 0901:** Centrica (GE) to lead discussion on Shrinkage Profiling as an agenda item for the November Meeting onwards.

**Update:** Discussed under Agenda Item 2.3. **Closed**

**Action 0902:** SGN (CW) to redact, amend and re-issue Shrinkage and Leakage Report to Ofgem and the Joint Office for circulation and publication to Shrinkage Forum webpage. CW will also amend “confidential” to “internal” for publication.

**Update:** Colin Wainwright (CW) apologised for the late submission of the report and welcomed any comments or issues to be forwarded to him directly. RHa enquired about the redaction. CW explained that there are high level indicative costing data provided by DNV GL which not for publication at the current stage. **Closed**

**Action 0903:** Cadent (MM) to provide update on “Digital Platform for Leakage Analytics” in November Shrinkage Forum

**Update:** Discussed under Agenda Item 2.1. **Closed**

#### **1.4. Approval of Late Papers**

Two late Papers were received on 22 November 2022. One for Action 0902 and one for Action 0903 which was to be discussed in Agenda Item 2.1.

Participants raised concerns regarding the submission of late papers and being given sufficient time for consideration. RHa confirmed that under the UNC Modification Rule, documents should be published 5 Business Days prior to meetings to ensure parties have time to prepare for discussions.

## **2.0 Specific Topics/Projects Update**

### **2.1. Digital Platform for Leakage Analytics (DPLA) Update**

Matt Marshall (MM) introduced Magali Aurand (MA) from Guidehouse who provided an overview on the Digital Platform Leakage Analytics (DPLA) programme with presentation slides (<https://www.gasgovernance.co.uk/SF/231122>).

MM briefed on the background and aim of the project, being driven by Ofgem, to decarbonise gas and electricity energy distribution and Transmission networks.

MM explained the different funding phases and objectives of the project: The Discovery phase, the current Alpha Stage (expecting to end in January 2023) and the final Beta Stage, is expecting to last 2-5 years if being approved in Mid-2023.

Steve Mulinganie (SM) enquired about the Eligibility Criteria regarding the benefits to gas or electricity customers. MA explained the aim will be to demonstrate how product ideas and innovation will benefit the network consumers, and that the goal will be to reduce gas leaks (from environmental perspective), greater accuracy on reporting and reduction of shrinkage which has a direct impact on consumer bills so is demonstrating a net benefit to the consumer.

MM briefed on the key DPLA objectives of this programme, providing an illustration as to how the programme could help on the Shrinkage Leakage issues, aiming to reduce gas leaks, enabling greater accuracy in reporting and optimising maintenance and replacement strategy.

MM further provided a brief on how the project is to progress.

Gregory Edwards (GE) enquired if this platform will replace the current Shrinkage Leakage Model (SLM); and in terms of the objectives whether this is to reduce the current Shrinkage baseline, or the model will improve accuracy and could reduce Shrinkage in future. MM explained that this will allow an extra dimension of accuracy, allow the formation of new targets, greater granularity to make decisions; and this new platform could provide real time data to allow change over time. MM suggested that in time this could replace the current SLM.

Dave Morley (DM) challenged that 5 years was a long time given the environmental impact and asked why the project would take so long; he also queried who will run/operate SLM. MA anticipated 2+ years for the project, the 5-year period was generic for this type of Ofgem SIF project. MA confirmed that the Model will continue to be managed by the Distribution Networks.

DM enquired about the independence aspects. MM explained that as part of the project, there will be a periodic review by an independent assessor checking on the delivery as part of the Ofgem funding mechanism. In terms of reviewing the Platform when it comes live, MM advised that this is something that needs to be checked to ensure compliance.

Ian Dunstan (ID) further explained any change to the SLM would be subject to Ofgem decision and there will be a need to prove to Ofgem whether the change is appropriate. DM queried how this would impact on the time frame. ID explained that Ofgem would need a few months for a consultation and consideration of the new elements added, capital costs and that this is the normal process.

SM questioned the independence, monitoring and management of budget. SM pointed out that with new Request 0828R - Introduction of an Independent Shrinkage Expert, would deliver a solution to Shrinkage quicker.

MA explained how the model works conceptually and technically.

SM said this is very positive as Shrinkage has been a long-term issue but queried if this should be done by the Networks or independently. SM queried about machine learning and the machine interpretation of data; how to ensure the independence of the process and how this could provide the best and fair outcome as this could have significant impact on parties financially; and how do parties get confidence from this model.

MA explained that there is an inhouse expert designing the machine learning model. There is always a feature on traceability of decision making that users can see how data are processed for reassurance.

DM asked if any measurement has been done so far, what levels of gas have been detected and what the levels of decrease are compared to the current Shrinkage model output. MA explained it is currently a design concept and no actual trial has been done. This will be the case until the Beta stage.

GE raised questions on how the output from this platform would be validated and if this should be the GDNs' responsibility to improve the data quality and asked how the current data quality could support the running of this platform. MA stated that it would be during the Beta phase, a 2 year + project, the platform will be designed from scratch with lots of highly advanced components; testing and validation will be an important part of Beta phase. All data will be tested vigorously and will be used to compare with the current SLM. MA further explained how data would be validated in the Beta phase.

GE commented that this is not new data requirements, and his question is whether the existing data quality is sufficiently good to support the new model, since the new model seems to be data intensive compared to the existing SLM. He expressed concern that if the data is not sufficiently good to support the SLM, how can the output from the new model be relied on?

SM questioned about engagement of the Beta phase with the Networks and customers. He then summed up his concerns:

- Data Integrity (reliance on data quality),
- Assurance (true independent check),
- Independence (not just looking where it suits a particular party),
- Validation (of Model)
- Traceability (basis on which decision, particularly machine learning, are made)
- How will feedback be captured, fed back and ultimately addressed – will this be visible and the outcomes. Will a Modification be required to replace the existing arrangements, if not will an Ofgem consultation be required?

He stressed that there are questions to be answered to provide confidence to the customers and queried if customers will be engaged with the project before going into the final design and trial.

MA explained that this presentation is one of the first part of their extensive customer engagement plan. The Alpha phase is ending in January 2023 and this is the first opportunity to present this project to the Shrinkage Forum, they plan to make contacts with Shippers as a priority on a 1 to 1 basis for their comments and suggestions. Conversations have been held with organisations such as Sustainability First, Citizen's Advice to obtain a consumer perspective. Customer Surveys are also planned through Cadent to get feedback on how Networks are doing.

DM queried about the use of Leak-sensing technology. A brief discussion was held on the use of different technology and the business case analysis.

DM further stressed the importance of the quality of data and asked how the Performance Assurance Committee (PAC) assessed the data input. RHa asked if the question is what Ofgem's role is in the ensuring of data quality. ID commented that it is an ongoing Ofgem project to improve data quality; and that Ofgem has appointed an expert dealing with Shrinkage.

Simon Holden (SH) stated that for the validation to be credible, an independent review will need to be undertaken. It is important Shippers' view to be taken into Beta phase. SH also provided his view on using helicopter scanning technology (exceedingly expensive).

MM provided a brief on the Potential Benefits from the DPLA project (slide 4).

SM queried whether this model delivers actual benefits. This will only give a better view on what the answers should be. It is only a model to deliver better accuracy and that if the model does not generate real benefits it will only re-attribute cost.

MA stated that the Model delivers the bottom three benefits (on slide 4) directly (Reporting, Increased Accuracy and Real Time Input). The idea of this Platform is not just a model providing data but a more intelligent engine and the data derive is use properly could generate more beneficial outcomes.

SM also questioned that if Ofgem should pay for the "plant failure improvement" and believed that this should funded under the Networks own budgets. ID commented that this would finally be funded by customers.

MA clarified that plant failure detection is just one specific result of the platform's ability, there are other studies that could identify the percentage of leaks and to identify any material shifting due to the mains replacement programme.

GE raised the question about the interaction between this DPLA project and the asset management strategy prioritising assets to replace, asking where the overlap is.

ID replied that the current SLM model does not provide the specific data on prioritising asset replacement and that the new model provides an assessment for driving the whole investment plan.

MA concluded with the Next Steps of the DPLA project and the Beta Objective (Slide 5).

RHa asked whether the output from the Beta phase is a fully functional model. MA replied that it is a "minimum viable product" and will be functioning but not with the advanced/additional features. It will be tested on a small scale. Networks can develop and add extra features if required.

SM stated that if the core deliverable is only a "minimum viable product" and the value added is extra, and delivered limited data points, what is the consequential use of the products for the next stage. MA suggested the Beta phase is to provide the output and what the capabilities are. The additions will be like building in predictive capabilities such as estimating time to failure, and more advance but this is not the key aim of this project. MA mentioned they have some ideas what extras would be included in the Beta application.

RHa asked if MM/MA could provide a summary of “What is in Beta Phase and What is not.”

MA confirmed that BETA phase is not Network-wide. It is the building of the platform, demonstration, testing, verification of data etc. It would be on selected areas of Networks.

RHa suggested a further phase (Gamma phase?) would be needed to roll out the new model to cover all networks.

DM enquired how this is to be implemented and if Ofgem is taking over running of the model after the project? MA mentioned there is a brand-new programme and she could not tell at this stage.

GE emphasised the importance of collaboration and engagement with Shippers in the next stage.

SM suggested MA should reach out to Shippers for comments/suggestions on DPLA before closing on the Alpha and moving onto the Beta phase.

RHa proposed to MM/MA that the Joint Office could help with circulating information to its Distribution list.

## 2.2. Own Use Gas (OUG) Update

Colin Wainwright (CW) provided a brief progress update of the OUG Review.

CW explained that there are 3 phases for the review the current Own Use Gas model:

- Exploration phase
- Optioneering phase and
- Evaluation phase

The Exploration phase which is mainly data gathering exercises is nearly completed. The second phase is the processing and analysing of the GDN data, this process will end in January 2023 and will report to Ofgem on Options.

DM queried whether the analysis has been done and CW confirmed it is only data gathering.

DM then asked how the data will be assessed and about the time frame for an Ofgem decision. CW stated as this is an Ofgem suggested exercises, ongoing conversations have been held throughout. Latest conversation was in September and Ofgem and if Final Report is to be submitted in January 2023, Ofgem will make decision in April-June 2023.

Simon Holden (SH) asked what the process is in June 2023, if there would be consultation on the options of the outputs that will feed into the decision making. CW confirmed there will be but it has not been set up yet. SH stated that this is a major decision, and that the consultation is an important part of it.

SH challenged CW about a few observations regarding the statement on materiality “*prior to any conclusion being drawn on the data, which is that not material issue, .....*” SH queried the consistency of the logic and asked if Ofgem is aware of this question. The challenge is about the calculation, it might not be small and it might be material. He pointed out there is a consistent message which should not be a foregone conclusion until the final validation of data.

CW confirmed that the GDNs’ priority is to re-validate data.

SH raised concerns about comments being previously made and not being followed up and not reflected in the report to Ofgem. He also requested the representations need to be more closely followed up, quoting an example regarding a question in January 2022 on alternative methods.

SH stated that to make a valid comparison, they need to have comparative data to validate the statement. It is a matter that needs to be decided upon on, if there is any material increase in CO<sub>2</sub> emissions between the two methods, and he concluded that the GN’s environmental plan, there is a material misstatement so there is a materiality argument.

DM asked about the materiality definition and the independent adjudication of data. CW referred to the third-party system provided - the Supervisory Control and Data Acquisition (SCADA) system and if data is not found to be suitable, then they will go with a further extensive data collection exercise.

The issue of validity and credibility of data was discussed and that for work to be credible, true independence has to be demonstrated, and as DNV was appointed by the GDNs, that this is a query on DNV's independence and fairness.

It was noted that OUG assumptions are unlikely to have a material impact on investment decisions. Some challenges were noted with regards to changes in equipment being used and the assumptions made.

All GDNs are currently involved in a project looking for alternative methods of evaluating leakage, focussing on areas of greatest benefits to be gained. This project is assessing better methods of improving granularity and accuracy in the elements for LDZ Shrinkage.

Some challenges on the arrangements will be put in place to ensure there is an independent output. The process will be done in a fair and transparent manner.

SM asked GDNs to provide a paragraph to explain how the process is deemed to be valid and independent for all to have confidence of the outcome if arrangements are to be put in place to ensure independent output.

**Action 1101:** All GDN to advise if the OUG re-validation is subject to independent validation and if so, how is it being evaluated.

DM asked if all GDNs are actively involved in DPLA. CW confirmed that Cadent is the lead for the current phase, and other GDNs are supporting. It will be extended to other Networks in the next phase.

DM questioned why OUG is not metered. CW stated that generally they are not standard meters and it would require extensive investment to have meters installed, there was then a question on the cost versus benefit when consideration around materiality comes in. SH pointed out that it was a historical industry decision (at the time of British Gas) not to put in physical meters as the cost was considered disproportionate. As there are no physical meters there is a high-level cross check done to check the Shrinkage and Leakage Model and that was the origin of the Alternative method.

RHa concluded that OUG on the Agenda in January 2023 Meeting.

### 2.3. Shrinkage Profiling

Gregory Edwards (GE) referred to a significant issue captured in the Own Use Gas Reports (beginning of report page 4.)

GE stated his view of the issue was that what does not show up in shrinkage shows up in Unidentified Gas (UIG), on the base of it and does have a consequential impact. When Shrinkage is under-estimated, the UIG is allocated to shippers. The UIG is not treated equally and there is differential treatment, affecting Shippers in different ways. For those that pick up relatively more UIG means require more credit requirement.

The key point is because of the impact, the retail market need confidence that the right amount of UIG as a whole is being allocated to Shippers rather than a function of Shrinkage being inflated, and the likely inflation has a knock-on effect on competition.

RHa asked how GE would like to proceed with Shrinkage Profiling and why it is important to get it correct.

GE stressed the issue has been raised for a number of years and that the Shrinkage Profile needs to be more realistic, noting a flat profile is inaccurate. The factors that affect Shrinkage on a daily basis are not used. Why does there need to be an equal amount of shrinkage every day of the year. There has been no underlying challenge.

RHa questioned if DPLA has a profiling in it. MM stated that it will have to take numbers of real time readings per day, new technology to be looked at, and make changes in the operation priority. SM suggested that DPLA must be dynamic, and in the medium term must consider different approaches to current modelling to address this concern. SM stressed that the Shrinkage issues have been there and as Shippers have no rights to influence, this is for the Transporters/Networks to instruct their expert to investigate in the methodology to change.

**Action 1102:** GDNs to consider introducing Profiling into current Shrinkage and Leakage Model and whether this is feasible report in January 2023 Meeting.

Julie Chou (JC) queried how this profiling will fit in the current model.

Emma Buckton (EB) wished to understand the benefits of profiling and the need to understand the whole context and would like to have an overview and how this benefits the UIG calculation.

GE explained that UIG allocated across Shippers could be understated or overstated on a daily basis due to the flat shrinkage profiling.

**New Action 1103:** GE to provide some worked up examples to illustrate the impacts of using flat profiling and how this impacts Shippers

Paul O’Toole mentioned the demand estimation methodology is managed by DESC and looked at by Xoserve. GE stated that he is not challenging how UIG works but simply challenging what is allocated on a daily basis.

Richard Pomroy (RP) stated that the cost of change would be reflected in Transportation Charges, the benefit would be a reduction in UIG volatility, the same costs may still be incurred. GE explained that there is a distortion across the community in UIG and that is the Shippers paying the Transportation Charges. RP advised there would be a risk of introducing another allocation issue.

### 3.0 Any Other Business

#### 3.1. Request 0828R – Introduction of an Independent Shrinkage Expert

It was noted that a standalone Request Workgroup meeting had been scheduled for the 02 December 2022, participants agreed to defer discussions to this meeting.

Details can be found <https://www.gasgovernance.co.uk/0828/021222>

David Morley (DM) advised that the submitted Modification would be converted into the Request template as suggested by Panel, so there would be limited changes in the content. He welcomed any comments or further suggestions.

### 4.0 Diary Planning

Further details of planned meetings are available at: [www.gasgovernance.co.uk/events-calendar/month](http://www.gasgovernance.co.uk/events-calendar/month)

Forum meetings will take place as follows:

Time / Date	Paper Publication Deadline	Venue	Workgroup Programme
09:30, Wednesday 18 January 2023	17:00, Monday 09 January 2023	Teams Meeting	Standard Workgroup Agenda

**Action Table (as at 23 November 2022)**

<b>Action Ref</b>	<b>Meeting Date</b>	<b>Minute Ref</b>	<b>Action</b>	<b>Owner</b>	<b>Status Update</b>	<b>Due Date</b>
<b>0101</b>	12/01/22	4.1	Joint Office (YRH) to speak to the incumbent Chair about how or what the Joint Office can do to engage Shippers and understand their commitment to future Shrinkage Forum meetings and discussions.	Joint Office (YRH)	<b>Closed</b>	<b>Nov 22</b>
<b>0901</b>	21/09/22	2.0	Centrica (GE) to lead discussion on Shrinkage Profiling as an agenda item for the November Meeting onwards.	Centrica (GE)	<b>Closed</b>	<b>Nov 22</b>
<b>0902</b>	21/09/22	2.0	SGN (CW) to redact, amend and re-issue Shrinkage and Leakage Report to Ofgem and the Joint Office for circulation and publication to Shrinkage Forum webpage. CW will also amend “confidential” to “internal” for publication.	SGN (CW)	<b>Closed</b>	<b>Nov 22</b>
<b>0903</b>	21/09/22	6.0	Cadent (MM) to provide update on “Digital Platform for Leakage Analytics” in November Shrinkage Forum	Cadent (MM)	<b>Closed</b>	<b>Nov 22</b>
<b>1101</b>	23/11/22	2.2	All GDNs to advise if the OUG re-valuation is subject to independent validation and if so, how is it being evaluated.	All GDNs	<b>Pending</b>	<b>Jan 23</b>
<b>1102</b>	23/11/22	2.3	GDNs to consider introducing Profiling into current Shrinkage and Leakage Model and whether this is feasible report in January 2023 Meeting.	All GDNs	<b>Pending</b>	<b>Jan 23</b>
<b>1103</b>	23/11/22	2.3	GE to provide some worked up examples to illustrate the impacts of using flat profiling and how this impacts Shippers	Centrica (GE)	<b>Pending</b>	<b>Jan 23</b>