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Date: 29 June 2023

Dear Cadent Gas Limited,

SIF Project Direction ref:

Cadent/Digital Platform for Leakage Analytics/SIFDataDigitalisation/Rd1 Beta

Cadent Gas Limited submitted Digital Platform for Leakage Analytics (the Project) to be considered for funding through the Beta Phase of the Strategic Innovation Fund (SIF). As explained in greater detail below, this Project previously received SIF Funding and completed a Discovery Phase and Alpha Phase for round 1 of the SIF. In our¹ SIF funding decision which is finalised and will be issued on 18 July 2023, we selected the Project² for conditional funding and as a result we are now issuing this SIF Project Direction to implement that decision.

Cadent Gas Limited must comply with the conditions contained in this SIF Project Direction as a condition of the Project receiving funding through the SIF. These conditions can be found in the Schedule to this document.

Progression through SIF Phases

The SIF consists of a multi-phase approach for Projects in order to mitigate the risk associated with innovations. The Discovery Phase focuses on feasibility, the Alpha Phase on experimental development, and the Beta Phase on deployment and demonstration.

¹ The terms 'we', 'us', 'our' refer to the Gas and Electricity Markets Authority. Ofgem is the office of the Authority.

² Unless otherwise specified, defined terms in this SIF Project Direction have the meaning given to them in Appendix 1 of the SIF Governance Document.

The Project previously received SIF Funding for the Discovery Phase³ and Alpha Phase⁴ of round 1, and submitted an Application for the Project to be considered for SIF Funding through the Beta Phase of round 1 of the SIF. As stated above, the Project has been selected to receive SIF Funding for the Beta Phase of round 1.

Role of UK Research & Innovation (UKRI)

As per Chapter 1 of the SIF Governance Document⁵ the role of UKRI is to deliver the SIF in line with the SIF Governance Document - administering the funding programme, monitoring the delivery of Projects, collating data from Projects on benefits, making recommendations to Ofgem on operational matters, supporting third-party innovators and, where possible, successful Projects to become 'business as usual' activities. To support the success of the Projects and the SIF programme, we expect that the Funding Party and Project Partners collaborate with Ofgem and UKRI.

SIF Project Direction

Paragraph 5.14 of the SIF Governance Document states that a SIF Project Direction will:

- Set out the Project-specific conditions, to which the Funding Party is committing in accepting SIF Funding.⁶
- Require the Funding Party to undertake the Project in accordance with the commitments made in the Application. Where appropriate, the SIF Project Direction may therefore include extracts from the Application or refer to specific sections of the SIF Application.⁷
- Where applicable, set out conditions (such as Project stage gates) linked to milestones and deliverables, which Projects must meet.⁸
- Set out the SIF Approved Amount for the Project, that will form part of the calculation contained in the SIF Funding Direction issued by the Authority under chapter 7 of the SIF Governance Document.⁹
- Set out the Project budget that the Funding Party must report against and how variations in the Project budget will be reported.¹⁰

³ The Project Directions for round 1 of the Discovery Phase are available at:

<https://www.ofgem.gov.uk/publications/strategic-innovation-fund-discovery-projects-approved-funding>.

⁴ The Project Directions for round 1 of the Alpha Phase are available at:

<https://www.ofgem.gov.uk/publications/strategic-innovation-fund-round-1-alpha-projects-approved-funding>.

⁵ <https://www.ofgem.gov.uk/publications/sif-governance-document>

⁶ 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

⁷ 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

⁸ 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

⁹ 'SIF Funding Amount' detailed under Point 5 – 'Condition President' of this SIF Project Direction.

¹⁰ 'Annex 1 – Project Budget.

- Where applicable, set out special information sharing requirements applicable to the Project.¹¹
- Set out the mechanism for the Funding Party receiving the SIF Approved Amount as set out in the SIF Funding Direction.¹²

All SIF Project Direction requirements are detailed in the Schedule to this SIF Project Direction.

Decision

Provided the Funding Party complies with the SIF Governance Document and with the Schedule to this SIF Project Direction, the Project is deemed to be an Eligible SIF Project¹³.

This SIF Project Direction constitutes notice pursuant to section 38A (Reasons for decisions) of the Gas Act 1986.

Marzia Zafar

Deputy Director, Decentralisation & Digitalisation

For and on behalf of the Authority

¹¹ 'Project specific conditions' detailed under Point 3 – 'Condition President' of this SIF Project Direction.

¹² 'SIF Funding Amount' detailed under Point 5 – 'Condition President' of this SIF Project Direction.

¹³ The meaning 'Eligible SIF Project' is described in Chapter 2 of the SIF Governance Document.

Schedule to SIF Project Direction

1. PROJECT DETAILS

SIF Project Direction reference:

Cadent/Digital_Platform_for_Leakage_Analytics/SIFDataDigitalisation/Rd1_Beta

Application number: 10062698

Project title: Digital Platform for Leakage Analytics

Innovation Challenge/Project Phase: Data and digitalisation / Beta Phase round 1

Project start date: 01 July 2023

Project end date: 30 January 2026

SIF Approved Amount for SIF Funding: £9,496,476

2. PREAMBLE

This SIF Project Direction is issued by the Gas and Electricity Markets Authority (the "Authority") to Cadent Gas Limited (the "Funding Party") pursuant to the SIF Governance Document issued pursuant to Special Condition 9.13 of the Gas Transporter Licence (the "Licence"). It sets out the conditions to be complied with in relation to Digital Platform for Leakage Analytics (the "Project") as a condition of it being funded under the SIF Funding Mechanism.¹⁴

Unless otherwise specified, defined terms in this SIF Project Direction have the meaning given to them in the Licence or Appendix 1 of the SIF Governance Document.

References to specific sections of the Funding Party's Application in this SIF Project Direction are, for ease of reference, made by referring to the section number in the Funding Party's Application.

3. PROJECT SPECIFIC CONDITIONS

In accepting funding for the Project, the Funding Party is subject to the following Project-specific condition(s):

Condition 1

The Funding Party must not spend any SIF Funding until contracts are signed with the Project Partners named in Table 1 for the purpose of completing the Project.

¹⁴ The SIF Funding Return Mechanism is defined in the SIF Governance Document.

Table 1. Project Partners

GUIDEHOUSE EUROPE LIMITED
SOUTHERN GAS NETWORKS PLC
WALES & WEST UTILITIES LIMITED
NORTHERN GAS NETWORKS LIMITED
NATIONAL GAS TRANSMISSION PLC

Condition 2 – Financial contribution

The Funding Party must report on the financial contributions made to the Project as set out in its Application. Any financial contributions made over and above that stated in its Application should also be reported and included within the Project costs template.

Condition 3 – Meeting arrangements

The Funding Party must participate in all meetings related to the Project that they are invited to by Ofgem, UKRI and DESNZ during and after the Beta Phase.

Condition 4 – Stage gate scoping

The Funding Party must, with support from Innovate UK/UKRI and, where applicable Ofgem, scope the requirements and success criteria for each stage gate within a Project at the quarterly reporting meetings ahead of any stage gate. These will be used to determine what criteria a Project must meet in order to pass a stage gate, and whether any additional information, such as a report, must be produced as part of the stage gate.

Condition 5 – Dissemination of annual progress report(s)

Each of the annual progress reports that the Funding Party publishes in the Beta Phase must, at a minimum, be uploaded to the ENA's Smarter Networks Portal. We also strongly encourage wider dissemination of the annual progress report(s) and support from all Project Partners in ensuring it reaches a wide audience.

Condition 6 – Impact monitoring

As part of the end of Project Phase report, the Funding Party must produce a Project Impact Monitoring and Evaluation Plan. This plan must outline how the Project plans to monitor and evaluate the delivery of benefits outlined in the Beta Phase Application following the end of the Beta Phase. The plan must also include the methodology that will be utilised for quantifying and qualifying benefits realisation and how the Funding Party plans to report this to Ofgem 1, 3, 5 & 10 years post-Beta Phase completion.

Further details on how to approach the development of this plan may be provided by Ofgem or IUK.

Condition 7 – SIF Community Forums

The Funding Party and all Project Partners must make reasonable attempts to attend, participate and/or contribute at SIF Community Forum events occurring during the Project delivery. We anticipate there being approximately one event per year.

Condition 8 – Policy, regulatory and standards barriers

The Funding Party must provide verbal updates at each quarterly meeting on any regulatory, policy and standards barriers and any change requirements which may impact delivery of the Beta Phase activities. The Funding Party must also include as an attachment to each of its annual progress report an update on any regulatory, policy and standards barriers which may require derogations and articulation of any proposed regulatory, policy and standards changes which would be necessary in deployment. The Funding Party must also provide an as an attachment to its end of Project Phase report a summary of the Project's findings on regulatory, policy and standards barriers, including any considerations for future work, and where applicable, where specific regulatory, policy and standards changes would be required for deployment.

Condition 9 – Updated 60-second videos

The Funding Party must provide within the first three months of the Project beginning (i.e. by 1 October 2023) an updated 60-second video. If the Project is greater than two years (longer than 24 months) in length, an updated video must also be provided at the Project's mid-point meeting. All Projects must also provide an updated 60-second video as part of their end of Project phase report. Innovate UK can share its guidance for 60-second videos with the Funding Party, if necessary.

Condition 10 – Consumer engagement

The Funding Party must provide an update on consumer engagement plans at every second monitoring meeting (i.e. every six months). This must include an update on any activities which involve engagement and interaction with energy consumers, and any impact the Project may have on existing or future energy consumers and their premises.

Condition 11 – Post-Beta Phase roadmap

The Funding Party must provide to the monitoring officer within six months of the Project beginning (i.e. by 1 January 2024) a roadmap for activities post-Beta Phase. This can

build on the Project's Application question (question 11) and must focus on how and when the proposed solution will become business as usual within your network and across the other GB gas or electricity networks.

As part of this, the Funding Party must include consideration for:

- I. any steps the Project will take to ensure its innovation has suitable business as usual adoption;
- II. the Funding Party's strategy for adoption of the innovation or proposed solution, giving consideration to potential investment, ongoing costs and third-party involvement and;
- III. any early indication of interest from other networks in adopting the innovation.

The Funding Party must provide an update on all the above at every two quarterly monitoring meetings (i.e. every six months) and must include a final update of this roadmap as attachment to its end of Project Phase report.

Condition 12 – Commercialisation strategy

The Funding Party must provide at every second quarterly monitoring meeting (i.e. every six months) an update on its commercialisation strategy. This can build on the Project's Application question (question 12) and must focus on what considerations have the Project consortium made for the commercialisation of the proposed solution or innovation, and how the Project provides support for non-network partners to move towards commercialisation. As part of this, the Funding Party may wish to include consideration for:

- I. who the primary customer segment is beyond the Funding Party; the customer value proposition;
- II. if identified, the outline of the route to market and potential new partnerships;
- III. any additional Project Partner capital requirements in order to commercialize the innovation and;
- IV. how this product, process or service could be scaled across the GB network and taken to new markets.

The Funding Party must also include a final update of its strategy as an attachment to its end of Project Phase report. Ofgem and/or Innovate UK may issue a template for the final update as part of the end of Project Phase report.

Condition 13 - Data Best Practice and Digital Strategy and Action Plan Guidance alignment

The Funding Party must provide to the monitoring officer prior to it formally beginning any work on the Project a summary of how it intends to comply with Ofgem's Data Best

Practice Guidance, and Digitalisation Strategy and Action Plan Guidance. Additionally, a part of its year 1 annual progress report, the Funding Party must provide a written update to the monitoring officer on its incorporation and application of data best practices to date in the Project, including its presumed open data policies, and data triaging methodology.

Condition 14

Prior to the Funding Party beginning any formal works on the Project, it must provide to the monitoring officer a breakdown of how the Project can be delivered in low, medium and high cost pathway, recognising that the 'high cost' pathway is the one set out in by the Project in its Application. Alongside this, the Funding Party must provide a summary of its spend control and governance approach for the Project, including what decision points or criteria will determine which of these cost pathways is suitable and justifiable. The Funding Party must provide an update on the Project's alignment with the cost pathways at each stage gate (set out in the Project plan as Stage Gate 1 and Stage Gate 2) and as an attachment to each of its annual progress reports.

Condition 15

As part of stage gate 1 (set out as Stage Gate 1 in the Project plan), the Project must demonstrate that all data outlined in Slide 7 in the interview presentation pack has been triaged as described. As part of this, the Funding Party must also provide evidence of dissemination and publication of the data modelling used for gas leakage analytics developed in this Project to ensure there are opportunities for other GB gas networks to adopt this technology. Additionally, as part of this, the Funding Party must provide sufficiently strong justification and evidence for any data or modelling methods which have not been published.

Condition 16

The Funding Party must include as an attachment to each of its annual progress reports an update on its ongoing governance of the Project describing the approach for how data, analytics and models can be used to identify and locate leaks and how this approach can be replicated by other GB gas networks. As part of this, the Project must also include updates on its engagement with other GB gas networks not included as stakeholders in the Project to ensure the ontology that the Project produces is adoptable. The Funding Party must provide as an attachment to its end of phase report a final whitepaper describing how the Project's data, analytics and models can be used by other GB gas networks.

Condition 17

The Funding Party must present at the second monitoring meeting an engagement plan describing how it will update and engage with Ofgem subject matter experts on specific shrinkage and leakage regulation that the Project's proposed solution could replace or influence, including the requisite timelines for doing so to ensure regulation does not inhibit the progress and implementation of this project in to business as usual.

Condition 18

As part of stage gate 2 (set out as Stage Gate 2 in the Project plan), the Funding Party must provide an updated gap analysis or detailed benefits analysis outlining the progress of the Project against the counterfactual of the Shrinkage and Leakage Model.

Condition 19

The Funding Party must establish a working group with the team behind the other SIF Beta Phase Project 'Intelligent Gas Grid' to identify areas of potential overlap or duplication, periodic updates, and opportunities for collaborative working. Innovate UK can facilitate an introduction if necessary.

4. COMPLIANCE

The Funding Party must comply with Special Condition 9.13 of the Gas Transporter Licence (the "Licence"), the SIF Governance Document and with this SIF Project Direction.

5. SIF APPROVED AMOUNT

The SIF Approved amount of £9,496,476 (as detailed under Section 1: Project details of this Project Direction) will be recovered by National Gas Transmission from GB customers and transferred to the Funding Party. The Funding Party is responsible for notifying National Gas Transmission of the bank account details to which transfers must be made, in addition to completing Annex 2 of this SIF Project Direction. If a Funding Party is required to return funding to National Gas Transmission, the reverse applies. The Funding Party must provide bank account details to National Gas Transmission within two weeks of accepting this SIF Project Direction.

6. PROJECT BUDGET

The Project Budget is set out in Annex 1 of this SIF Project Direction.

The Funding Party must report on expenditure against each line under the category total in the Project Budget and explain any projected variance against each line as part of its detailed report which will be provided, in accordance with Chapter 7 of the SIF Governance Document. The Funding Party must report variations in the Project budget as outlined in Chapter 6 of the SIF Governance Document.

7. PROJECT IMPLEMENTATION

The Funding Party must undertake the Project in accordance with the commitments it has made in the Application and with the conditions of this SIF Project Direction. These include (but are not limited to) the following:

- (i) undertake the Project in accordance with its Application,
- (ii) complete the Project on or before the Project completion date as detailed under section 1 of the schedule of this SIF Project Direction, and
- (iii) disseminate the learning from the Project at least to the level described in chapter 3 of the SIF Governance Document. Dissemination of learning must be carried out whether the Project was concluded successfully or otherwise.

8. REPORTING

Ofgem and UKRI may issue guidance (and amend it from time to time) about the structure and content of the Project reporting required by Chapter 6 of the SIF Governance Document. The Funding Party must follow this guidance in preparing the reports.

The Funding Party must submit an end of Project Phase report to UKRI monitoring officers for the Beta Phase. Within this report, the Funding Party must submit information related to questions on Project delivery as detailed in chapter 6, table 6 of the SIF Governance Document.

9. MONITORING

The Funding Party must comply with any reasonable request for information by its monitoring officer at UKRI and related deadlines. Ofgem, with the support of UKRI, will together monitor Project delivery, impacts and benefits. Throughout the term of the Project, progress is monitored by UKRI through a monitoring officer. The monitoring officer is the first point of contact for official notifications, queries and correspondence with UKRI and the Authority, unless otherwise required by this SIF Project Direction.

As detailed in Chapter 6 of the SIF Governance Document, meetings with the monitoring officer will take place at regular intervals, as advised by Ofgem or the monitoring officer during the delivery of the Project, and at the end of each Project Phase.

10. EVALUATION

The Funding Party has acknowledged when it submitted its Application for this Project, that reporting information and data gathered during the Project's timescales (as detailed in Section 1 of this SIF Project Direction) will be used to evaluate Project performance. In addition, the Funding Party may be required to provide requested information outside of the Project timescales and, in particular, for the period from the Project end date to the end of the SIF Programme. Further data and reporting information may be requested (frequency and method based on requirement) outside of standard monitoring and reporting requirements as deemed necessary. Further data and information requirements must be complied with by the Funding Party and Project Partners.

11. DATA SHARING

As set out in Chapter 3 of the SIF Governance Document, the Funding Party must follow Data Best Practice Guidance with regards to all data gathered or created in the course of a Project. We expect the Funding Party to document any reasons, such as commercial sensitivities, for desensitising data. As defined by, and in accordance with, Data Best Practice Guidance, Funding Parties must have a data triage process. Where multiple Project Partners are collaborating on a Project, the consortium must adopt a consistent Open Triage Process for the data related to the Project. Ofgem may require that Project information and data is also shared with other specified parties, such as parties working on complementary innovation funding programmes (subject to redaction of sensitive data).

12. CYBER SECURITY

It is the responsibility of the Funding Party and all Project Partners to implement and maintain appropriate security measures to protect personal data in accordance with The GDPR (General Data Protection Regulation)¹⁵ and DPA (Data Protection Act) 2018¹⁶. Protection of computer systems from unauthorised access or being otherwise damaged or made inaccessible must be in place alongside effective working practices. These must be maintained in line with the Funding Party's IT Management Strategies and policies.

¹⁵ https://ec.europa.eu/info/law/law-topic/data-protection/data-protection-eu_en

¹⁶ <https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted>

13. PROJECT MILESTONES

The Funding Party must submit its end of Project Phase report to its monitoring officer that verifies the Project milestones have been achieved or explains why they have not.

Project milestones are outlined below in Table 3, based upon details contained within Question 7 and Appendix Question 9 in the Funding Party's.

Table 3. Project milestone¹⁷

Reference	Project milestone	Deadline	Overall objectives and key tasks	Summary of Milestones and Success Criteria	SIF Funding Request (100%)
Milestone 1	WP1: Programme Management and Business Case	30 January 2026	<p>Overall work package objectives: Ensure the continued coordination of the Project and support work packages two to eight to overcome risks and issues. Retain an on-going and updated view of the Project's progression to ensure the management of project finances and the business case.</p> <p>Key tasks:</p> <p>1. Ongoing planning and design of the programme and proactively addressing risks and resolving issues</p>	<p>M1: Mobilisation:</p> <p>1. Ensure all resources are upskilled in order to deliver their role to the Project</p> <p>2. Project meetings and governance (e.g., risk management, actions and decisions log) are set up and a responsible person identified</p> <p>3. Complete RACI to clearly identify the stakeholders responsible and accountable as well as identify those who should be involved and</p>	<p>£2,235,283.87</p> <p>(24%)</p>

¹⁷ As outlined in in the Application or Project Plan appendix.

			<p>2. Addressing the Project's governance arrangements on an ongoing basis</p> <p>3. Coordinating the confirmation of geographic scope during the mobilisation period for the Beta phase</p> <p>4. Develop commercial strategy and rollout plan for BaU (with Innovate UK)</p> <p>Update business case in preparation for stage-gates</p>	<p>consulted across all project activities</p> <p>4. Confirm Geographic Scope for Beta Build and Test. (£465,902.43)</p> <p>M2: Formal Kick Off: 1. The delivery of the data catalogue and suitability report to enable data preparation and development</p> <p>2. Trial Strategy and technology assessment delivered in order to mobilise the trials</p> <p>3. The architect cloud-based storage solution (Data Lake) completed and the establishment of data governance and</p>	
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				<p>operationalising approach commenced</p> <p>4. The identification of interim business process maps as well as delivery of the impact assessment on the regulatory framework, policy implications and network code change assessment</p> <p>5. Knowledge sharing approach and channels identified enabling the launch of the web-page. (£1,516,596.87)</p> <p>M3: Delivery of Stage Gate 1: 1. The meta-data and data dictionary is representative and sufficiently granular for the pipeline asset type enabling model development, and the</p>	
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				<p>data is suitable for model development</p> <p>2. Determined by the physical trials, identify whether it is practically feasible and cost-effective to deploy additional fixed sensors. The Data Progress Review supports the need for additional sensors and the sensors are deployable within the model development phase. (£530,067.38)</p> <p>M4: Progression to Model Build:</p> <p>1. Data preparation and development complete (D2.1 and D2.2 delivered)</p> <p>2. Continuous delivery of the model and expert system development</p>	
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				<p>3. Continue the execution of trials (vehicle, aerial and sensors) and IS System Architecture to enable the model build</p> <p>4. Delivery of the Business Change Impact Assessment and the To-Be process maps identified</p> <p>5. Input shrinkage incentives and outputs and re-opener mechanisms into RII03 plan</p> <p>6. DPLA progress reports to be shared with Project Sponsors</p> <p>7. Commence the development of the open framework to standardise and simplify data. (£1,754,044.52)</p>	
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				<p>M5: D2.3 Hybrid Hydraulic Model Guide: A step-by-step guide to the refined hybrid hydraulic model, detailing its development and testing. (£1,652,412.75)</p> <p>M6: Delivery of Stage Gate 2:</p> <p>1. All models are built and tested and produce adequate outputs and performance (to be tested by a revised iteration of the business case)</p> <p>2. Determined by the operational change analysis, the business has the resources and change capacity to implement the operational change required for BaU.(£1,774,895.30)</p>	
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				<p>M7: Expert System</p> <p>Operational: 1. Ensure the expert system is operational and a Project Model Prototype on-track</p> <p>2. Develop Model BaU Rollout Plan, Business Change BaU Rollout Plan, a Commercialisation Strategy and Rollout Plan</p> <p>3. Ensure that DPLA considerations have been integrated into RIIO-3 and GDs DPLA commitments have been shared across the business. (£1,754,044.52)</p> <p>M8: Project closure and all deliverables complete: 1. Complete delivery of Model BaU Rollout Plan, Business Change</p>	
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				<p>BaU Rollout Plan, a Commercialisation Strategy and Rollout Plan</p> <p>2. Final DPLA progress reports to be shared with Project Sponsors to ensure the complete dissemination of knowledge. (£359,293.21)</p>	
Milestone 2	WP2: Models, Analytics & Data Development	30 January 2026	<p>Overall work package objectives: To prepare and develop all relevant data, build all the required models, and deploy necessary remote sensor technologies to enable DPLA functionality. To build the expert system which enables analytics for GDNs, and prepare scale-up of platform for BaU rollout across GDNs</p> <p>Key tasks:</p> <p>1. Complete ID of all required or potential data source, establishing common</p>		<p>£3,039,698.77</p> <p>(32%)</p>

			<p>definitions across, linkages between, and extraction processes for each source</p> <p>2. Acquire historical data for each data set. Vet, clean and correct the data. Assess accuracy and uncertainty. Map past leaks to static and operational data</p> <p>3. Build, test and refine hybrid hydraulic model for both steady state and transient flow conditions</p> <p>4. Build, train, evaluate and refine model-driven, data-driven and hybrid leak detection models</p> <p>5. Build, train, optimise, evaluate and refine the expert system which drives DPLA's analytic capabilities</p> <p>6. Functional and viability testing completed for the hybrid hydraulic model, the three classes of ML-based leak detection models and the expert system</p>		
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			<p>7. User acceptance testing completed for the user interaction interface</p> <p>8. Prepare scale-up plans and BaU rollout plans across GB's gas networks</p> <p>9. GDN Requirements Gap Analysis based on data availability</p>		
Milestone 3	WP3: Physical Sensor Trials & Deployment	30 January 2026	<p>Overall work package objectives: To select, trial and assess multiple in-field leak sensing technologies.</p> <p>Key tasks:</p> <p>1. Re-mapping the technology landscape and recommending the final set of technologies to be trialled in the DPLA solution</p> <p>2. Evaluate feasibility of deploying additional fixed sensors to existing validation posts and deploy as needed.</p>		<p>£1,490,244.62</p> <p>(16%)</p>

			<p>3. Plan and execute trials for fixed, vehicle-based and aerial-based in-field leak detection technologies.</p> <p>4. Synthesises the findings from the trials into actionable insights</p>		
Milestone 4	WP4: IS System Architecture Design & Integration	30 January 2026	<p>Overall work package objectives: Collaboratively develop a solution architecture and data population approach, configure the architecture of the Data Lake, and configure the tool to ensure that the IS System is fully integrated into Cadent's systems</p> <p>Key tasks:</p> <p>1. Confirm whether or not the proposed Alpha architecture should be adopted</p> <p>2. Collaboratively develop the chosen solutions architecture and data population approach and ensure feasibility of integration into Cadent ecosystem</p>		<p>£1,667,155.89</p> <p>(18%)</p>

			<p>3. Configure the necessary data lake environments</p> <p>4. Develop data pipelines using DataOps framework (Guidehouse to deliver via apprenticeship model) and data pipelines are designed, built, and operational to support the modelling platform</p> <p>5. Configure the platform to appropriately process data and data pipelines (Guidehouse to deliver via apprenticeship model)</p> <p>6. Develop infrastructure as a code and deploy the data pipeline CI/CD</p>		
Milestone 5	WP5: Business Change Management & BAU transition	30 January 2026	Overall work package objectives: To prepare Cadent for BAU operational changes through the establishment of interim and to-be process maps identified through change impact assessments and the development of a BAU Training Plan through the execution of a training needs analysis and curriculum.		£491,510.95 (5%)

			<p>Key tasks:</p> <ol style="list-style-type: none"> 1. Engage with Business Impacted Areas in order to establish interim processes and undertake a Change Impact Assessments 2. Review and or build as-is process maps, and identify and develop any required new engineering, policies and managements procedures 3. Determine roles, responsibilities, and processes for existing or new procedures relevant to DPLA usage (e.g. escape and repair reporting) 4. Use the above to develop to-be process maps, and develop a plan and RACI for these to be maintained during BAU 5. Via a training needs analysis, develop the necessary training curriculum, 		
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			<p>approach, and material required upskill DPLA staff</p> <p>6. Execute the initial training, and iterate based on feedback, assess readiness for BaU rollout, and develop final plan for BaU rollout and handover</p>		
Milestone 6	WP6: Regulatory Reporting, Policy, License and Network Code Change	30 January 2026	<p>Key tasks:</p> <p>1. Input DPLA considerations into response to sector-specific methodology consultation</p> <p>2. Assess the impact of DPLA on the Regulatory Framework, including the SLM, reporting mechanisms and Gas Transporter License</p> <p>3. Develop firm proposals for shrinkage incentives and outputs and potential re-opener mechanisms and execute deep-dives with key stakeholders</p> <p>4. Input DPLA considerations into response to draft RIIO 3 determinations</p>		<p>£229,981.61</p> <p>(2%)</p>

			<p>and License modifications. Develop transitional arrangements as required</p> <p>5. Identify Network Code Sections impacted by DPLA, develop and workshop necessary changes through business rules and MOD Panels, and implement</p> <p>6. Review the impact of DPLA on gas safety policies and the Gas Act and engage with HSE and determine next steps as required</p>		
Milestone 7	WP7: Internal and External Communications & Knowledge Dissemination	30 January 2026	<p>Overall work package objectives: To develop and undertake knowledge dissemination processes to ensure sharing of DPLA key learnings and progress. Knowledge sharing material and approaches to be tailored to external and internal audiences. Briefings with stakeholder groups executed throughout.</p>		<p>£182,104.51</p> <p>(2%)</p>

			<p>Key tasks:</p> <ol style="list-style-type: none">1. Refine knowledge sharing approach and channels (e.g., social media, media, news-letters), develop key outreach materials for communications and determine processes to sharing key learnings2. Define approach to branding and marketing (e.g., logo and Web page), and build and launch sharing mechanisms3. Share materials critical to the dissemination of knowledge with Project Sponsors, including stakeholder engagement summary and report which shares learnings for sensor technology development4. Regularly engage internal stakeholders and act on feedback received5. Spread awareness of DPLA externally through engagement with external		
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			stakeholder groups and coordination with relevant conferences and programmes		
Milestone 8	WP8: Open data, interoperability, emerging trends and technologies, cross SIF project integration	30 January 2026	<p>Overall work package objectives: The delivery of a continuous technology and emerging trends review as well as cross SIF project collaboration and project integration through the development of an open framework to standardise and simplify data between projects</p> <p>Key tasks: 1. On-going evaluation of technology market and the identification of emerging trends, for example Open AI and frontier Machine Learning Techniques, to enhance the design of the DPLA</p> <p>2. Development of an open framework to standardise and simplify data sharing between projects</p>		£160,495.77 (2%)



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			3. Share data between the DPLA and LeakVision projects 4. Plan and execute end-to-end trial of DPLA and LeakVision working together.		
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14. USE OF LOGO

The Funding Party and the Project Partners, External Funders and Project Supporters or subcontractors¹⁸ must not use the Innovate UK/UKRI and/or Ofgem logo for purposes associated with the Project in any circumstances.

As an alternative for use of both Ofgem and UKRI logos, all external Project communications must include the following standard form of wording:

- (i) "this project is funded by network users and consumers under the Strategic Innovation Fund, an Ofgem programme managed in partnership with UKRI."

For additional guidance, refer to the communications and media guidelines for competition winners, detailed as part of your delivery pack. These guidelines are designed to help with some suggestions and encourage you to take a proactive approach to communicating about your Project.

15. SHARING OF LESSONS LEARNED

The Funding Party is required to ensure that the sharing of lessons learned and the facilitation of knowledge transfer is conducted as effectively as possible, to ensure that all parties, and therefore all consumers including future consumers, can benefit from Projects.

As contained within Chapter 3 of the SIF Governance Document, we require the Funding Party to work collaboratively to maintain the ENA Smarter Networks Portal so that all reporting and dissemination of learnings on Projects (as required by chapter 6 of the SIF Governance Document) is available via the ENA Smarter Networks Portal.

16. COLLABORATION

The Funding Party must collaborate with third-party innovators as Project Partners, as well as work closely with other parties in the energy supply chain, as set out in Chapter 3 of the SIF Governance Document.

The Funding Party must collaborate with other parties and with UKRI to organise an annual conference in a format appropriate to enabling the building of consortiums and disseminating learning widely. The conference may be a single event for gas and electricity, or more than one event, as appropriate.

¹⁸ As detailed in the Application.

17. AMENDMENT OR REVOCATION

As set out in Chapter 7 of the SIF Governance Document, this SIF Project Direction may be amended or revoked under the following circumstances:

- (i) if the Funding Party considers that there has been a material change in circumstance that requires a change to the SIF Project Direction, and the Authority agrees; or
- (ii) to reflect amendments made to the Licence.

18. HALTING OF PROJECTS

This SIF Project Direction is subject to the provisions contained in Chapter 7 of the SIF Governance Document relating to the halting of Projects. By extension, this SIF Project Direction is subject to any decision by the Authority to halt the Project to which this SIF Project Direction relates and to any subsequent relevant SIF Funding Direction issued by the Authority pursuant to Special Condition 9.13 of the Gas Transporter Licence (the "Licence").

Further to the requirements in Chapter 7 of the SIF Governance Document, in the event the Authority decides to halt the Project, to which this SIF Project Direction relates, the Authority may issue a statement to the Funding Party clarifying the effect of that halting decision as regards to the status and legal force of the conditions contained in this SIF Project Direction.

NOW THEREFORE:

In accordance with the SIF Governance Document issued pursuant to Special Condition 9.13 of the Gas Transporter Licence (the "Licence") of the Licence the Authority hereby issues this SIF Project Direction to the Funding Party in relation to the Project.

This constitutes notice of reasons for the Authority's decision pursuant to section 38A (Reasons for decisions) of the Gas Act 1986.

Failure to comply with the conditions of this SIF Project Direction means that Ofgem may treat all or part of the SIF Approved Amount received by the Funding Party as SIF Disallowed Expenditure.

ANNEX 1: PROJECT BUDGET

SIF Project Direction costs		
Cost Category	Total Project costs (£)	Total SIF Funding requested (£)
Labour	£10,426,622	£8,199,110
Materials	£826,052	£652,997
Subcontracting	£0	£0
Travel and subsistence	£115,840	£90,904
Other costs	£700,000	£553,465
Total	£12,068,514	£9,496,476

Project Partner	Total project costs (£)	Project contribution (£)	Total SIF Funding requested (£)	In-kind contribution (£)	Project contribution (%)
CADENT GAS LIMITED	£4,237,216	£887,000	£3,350,216	3,380,000	
GUIDEHOUSE EUROPE LIMITED	£7,767,038	£1,685,038	£6,082,000	0	
SOUTHERN GAS NETWORKS PLC	£9,480	0	£9,480	0	
WALES & WEST UTILITIES LIMITED	£18,120	0	£18,120	0	
NORTHERN GAS NETWORKS LIMITED	£22,950	0	£22,950	0	
NATIONAL GAS TRANSMISSION PLC	£13,710	0	£13,710	0	
TOTAL	£12,068,514	£2,572,038	£9,496,476	£3,380,000	11%

ANNEX 2 TO SCHEDULE: TEMPLATE OF BANK ACCOUNT DETAILS TO BE PROVIDED TO EITHER NGGT (BOX.GSOSETTLEMENTS@NATIONALGRID.COM) OR NG ESO (revenue.invoice@nationalgrideso.com)

Company name:

Primary Contact Details (only one contact permitted)

First Name:

Last Name:

Email address:

Mobile phone number:

Work phone number:

Address details

Address name:

Street address:

City:

State / region:

Post code:

PO box: (if applicable)

PO box post code: (if applicable)

Banking details

These should be evidenced in non-editable format. The evidence provided must show company name and bank details and it should be dated within the last 6 months.

Any of the below documents will suffice:

- Bank statement (scanned document)
- Void cheque
- Paying in slip
- Screenshot of online banking (showing a logged in account with bank account and sort code, with browser visible)