GDN Collaborative Vulnerability & Carbon Monoxide Allowance (VCMA)

Project Eligibility Assessment (PEA) - DRAFT

CO Partnership Ecosystem - Phase 5

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Gas Network Vulnerability & Carbon Monoxide Allowance (VCMA) Governance Document - Project Eligibility Criteria

Section 1 - Eligibility criteria for company specific projects (other than condemned essential gas appliance repair and replacement) In order to qualify as a VCMA project, a project must:	
VCMA Eligibility Criteria	**Criteria Satisfied (Yes/No)**
a) i. Have a positive, or forecasted positive Social Return on Investment (SROI), calculated in accordance with a model which the GDNs have developed and submitted to Ofgem including for the gas consumers funding the VCMA Project, and ii. have a positive, or a forecasted positive Net Present Value (NPV);	**Yes**
b) Either: **i.** Provide support to consumers in vulnerable situations, and relate to energy safeguarding, or **ii.** Provide awareness on the dangers of CO, or **iii.** Reduce the risk of harm caused by CO;	**Yes**
c) Have defined outcomes and the associated actions to achieve the requirements in paragraph b;	**Yes**
d) Go beyond activities that are funded through other price control mechanism(s) or required through licence obligations; and	**Yes**
e) Not be delivered through other external funding sources directly accessed by a GDN, including through other government (national, devolved or local) funding.	**Yes**
Section 2 - Eligibility criteria for company specific essential gas appliance servicing To qualify as a VCMA Project, essential gas appliance servicing must meet the following criteria:	
a) **i.** GDN has had to isolate and condemn an essential gas appliance following a supply interruption or as part of its emergency service role; or **ii.** a GDN or its Project Partner has identified an essential gas appliance which has not been serviced in the last 12 months in the owner-occupied home of a customer in a Vulnerable Situation where an occupier of the property suffers from a permanent or temporary health condition that makes them more vulnerable to health risks associated with cold homes; or **iii.** a GDN or its Project Partner has identified an essential gas appliance which has not been serviced in the last 12 months in a tenant-occupied home of a customer in a Vulnerable Situation where it is the tenant's responsibility to maintain the essential gas appliance, where an occupier of the property suffers from a permanent or temporary health condition that makes them more vulnerable to health risks associated with cold homes; or	**NA**
b) the household cannot afford to service the essential gas appliance, as assessed against the affordability criteria in the Energy Company Obligation (ECO4) Guidance: Delivery document; and	**NA**
c) sufficient funding is not available from other sources (including a social or private landlord and national, devolved, or local government funding) to fund the essential gas appliance servicing.	**NA**
Section 3 - Eligibility criteria for company specific essential gas appliance repair and replacement To qualify as a VCMA Project, unsafe pipework and essential gas appliance repair or replacement must meet the following criteria:	
a) **i.** a GDN has had to isolate and condemn unsafe pipework or an essential gas appliance following a supply interruption or as part of its emergency service role; or **ii.** A GDN or its Project Partner has had to condemn unsafe pipework, or an essential gas appliance, following an essential gas appliance service and	**NA**
b) **i.** The occupier of the property suffers from a permanent or temporary health condition that makes them more vulnerable to health risks associated with cold homes and has a household income as per ECO4 Income thresholds, or	**NA**

ii. the household cannot afford to repair or replace unsafe pipework or the essential gas appliance, as assessed against the affordability criteria in the Energy Company Obligation (ECO4) Guidance: Delivery document; and	
c) Sufficient funding is not available from other sources (including national, devolved or local government funding) to fund the unsafe pipework or essential gas appliance repair or replacement.	**NA**
Section 4 - Eligibility criteria for collaborative VCMA projects In order to qualify as a collaborative VCMA project, a project must:	
a) Meet the company specific project eligibility criteria set out in sections 1-3 above; and	**Yes**
b) Have the potential to benefit consumers on the participating networks; and	**Yes**
c) Involve two, or more, gas distribution companies.	**Yes**

Gas Network Vulnerability and Carbon Monoxide Allowance (VCMA) Governance Document - Project Registration Table 2

Information Required	**Description**
Project Title	CO Partnership Ecosystem-Phase 5
Funding GDN(s)	Cadent, SGN, NGN
New / Updated	New
Role of GDN(s) ***For Collaborative VCMA Projects only**	Cadent (lead GDN) SGN, NGN – funding and data sharing GDNs WWU – data sharing only
Date of PEA Submission	April 2025
VCMA Project Contact Name, email, and Number	Name: Phil Burrows Title: Head of Customer Vulnerability Social Programme Delivery Email: Phil.m.burrows@cadentgas.com Number: 07773 545451
Total Cost (£k)	£603,456 **Total GDN contribution: £603,456** Cadent: £378,456 • Phase 5: £300,000 • Leaflets: £1,500 • Internet of Things (IoT) 'Smart' CO alarms: £76,956 (including leaflets) NGN: £75,000 (confirmed) SGN: £150,000 (confirmed) **Total cost:** £603,456 (GDN and demonstrator)
Total VCMA Funding Required (£k)	£603,456 **GDN contribution: £**603, 456 Cadent: £300,000 +£1,500 for leaflets + £76,956 (for IoT) NGN: £75,000 (confirmed) (including £20,310 for IoT) SGN: £150,000 (confirmed) (including £20,310 for IoT) • **IoT contributions as a subset of the above costs**: £117,576
Problem(s)	Cadent and the other Gas Distribution Networks (GDNs) have been heavily involved in attempting to reduce the impact of CO poisoning in households, especially customers in vulnerable situations, for more than a decade. However, understanding the true breadth of the issue, whether that is the number of deaths attributed specifically to CO, CO as a contributor to early death, long term or short-term ill health, or the number of workdays lost each year due to spillage, has always been challenging.

<table>
<tr><td></td><td>It is a multifaceted problem, requiring clarity and structure in data collection, collation, storage, and reporting in an area where multiple organisations are working. GDNs, suppliers, contractors, health trusts, fire services, policy organisations (government departments and their agencies) and many more have all been working to solve the issue, yet given the scale and fragmentation of the problem, it has been challenging to fully scope the problem and track the improvements of any initiatives.

The GDN's have historically based the social value proxies on public health data that is several years old and determines the risk of a customer experiencing CO by comparing the number of CO related deaths/injuries against the country's population (e.g., 30.3 UK deaths per year). We believe that CO fatalities/injuries are under reported, and this project will provide more accurate data to inform GDNs' social value proxies by improving the identification of CO occurrences.

The wider implications of using outdated CO data for reporting and awareness campaigns cause the public to underestimate the risks associated with CO exposure, and the importance of annual appliance checks and use of a CO alarm. The use of outdated data also downplays the long-term morbidity associated with CO exposure, creating inaccuracy in understanding the real costs to the NHS of treating patients for CO exposure.</td></tr>
<tr><td>Scope and objectives</td><td>This phase of the Project scales up activity from previous phases, including the provision of IoT smart CO alarms to provide data and insight, delivery of CO and energy safeguarding workshops, data capture and data platform enhancements, CO attribute standardisation, and a CO incident follow up process. It will also mobilises new activities through a demonstrator project that brings in partners from London Borough of Hammersmith and Fulham, local authorities and Aico, this includes a CO awareness campaign, awareness raising through GP surgeries/pharmacies via leaflets and posters, a patient referral pathway tool trial, rogue landlord reporting in Greater London for landlords not providing CO alarms, as well as provision of and referrals for other support services around energy efficiency and income maximisation.

What is an Ecosystem?

"A business ecosystem is a purposeful business arrangement between two or more entities (the members) to create and share in collective value for a common set of customers. Every business ecosystem has participants, and at least one member acts as the orchestrator of the participants. All members in a business ecosystem, whether orchestrators or participants, have their brands present in the value propositions.

Who are the Ecosystem partners?

<table>
<tr><td>Gas Distribution Networks</td><td>Cadent Gas
SGN
Northern Gas Networks
Wales & West Utilities</td></tr>
<tr><td>Fire & Rescue Services</td><td>London Fire Brigade (LFB)
National Fire Chiefs Council (NFCC)
West Midlands Fire & Rescue Service (WMFS)
West Yorkshire Fire & Rescue Service
Devon and Somerset Fire & Rescue Service
Scottish Fire</td></tr>
<tr><td>Insurance</td><td>HomeServe</td></tr>
<tr><td>Alarm and Gas Sensing Manufacturers</td><td>Aico
Council of Gas Detection and Environmental Monitoring (CoGDEM)
Kane International</td></tr>
<tr><td>Healthcare</td><td>Birmingham NHS
National Poisons Information Service (NPIS)
NHS England
Northern Ambulance Alliance
Somerset Ambulance Service
Southeast Coast Ambulance Service
South Fulham Primary Care Network
St George's NHS Trust
Yorkshire Ambulance Service</td></tr>
<tr><td>Local and Central Government</td><td>Building Safety Regulator (BSR)
Department of Levelling Up, Housing and Communities (DLUHC)
Health and Safety Executive (HSE)</td></tr>
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and Regulatory Bodies	UK Health Security Agency (UKHSA) Office for National Statistics (ONS) Public Health Wales Home Office London Borough of Hammersmith & Fulham Marine Accident Investigations Branch (MAIB) Tower Hamlets Community Housing Commissioning Alliance - Setting the Standards
Charities	Carbon Monoxide Research Trust (CORT) CO-Gas Safety National Energy Action (NEA) Shelter Alzheimer's Society
Other	Alliance of London Environmental Health Managers Boat Safety Scheme (BSS) The Institution of Gas Engineers and Managers (IGEM) Heating Equipment Testing and Approvals Scheme (HETAS) Sia Partners

The CO Partnership Ecosystem aims to:

Develop a data-driven understanding of the true prevalence of CO poisoning from gas and solid fuel within domestic dwellings (including non-typical and unregulated dwellings of all tenure types), and the corresponding impact to society.

Through this improved understanding of CO data, the CO Partnership Ecosystem will aim to deliver solutions that achieve one or more of the following outcomes:

- Reduce the time a customer is exposed to CO
- Improve the rate (%) of CO diagnosis
- Improve the rate (%) of resolving CO spillage at source
- Address the cause of CO spillage and move to prevention
- Reduce the cost to society from CO exposure

Building the ecosystem:

To build the ecosystem, Sia Partners engaged with a variety of stakeholders to understand their challenges to minimising CO risk to customers and their views on taking a collaborative ecosystem approach to addressing CO challenges. A summary of the activities taken to build the ecosystem are:

- Identify a list of widespread, commonly encountered opportunities (CO problem areas) that could be addressed within the scope of the work
- Define the scope and reach of the ecosystem stakeholders, and the partners needed to deliver against those goals
- Identify and engage potential partners and agree a roadmap to success.
- Define ways of working, including roles and responsibilities for all partners

Phase 5:
Following the successful delivery of Phases 1-4, the project is now expanding to Phase 5. This phase will scale-up the various activities implemented in Phase 4, including:

- IoT 'smart' CO alarms and environmental sensors: The project will engage various stakeholders such as London Borough of Hammersmith & Fulham, AICO and charitable organisations such as Dementia UK to install IoT CO and environmental alarms in properties. The aim will be to provide smart detection devices to the most vulnerable households, ensuring early detection of CO and signs of fuel poverty (via the environmental sensors). These smart, connected detection devices will provide us with data on readings detected, alarm activations, battery status, alarm testing, and even alarm removal. This data gives an insight into home environments and customer behaviour.

- Awareness workshops: CO, energy efficiency, PSR and income max awareness workshops will be delivered across the GDN patches. During the workshops slow cookers and or heated blankets will be provided to each customer

	• CO platform enhancement & data capture: Phase 5 will focus on improving CORA, the CO data platform developed in previous phases. We will also engage with new stakeholders to obtain their data and add to the platform. In this phase, we will also determine how the platform can be improved for future and further use • CO attribute standardisation: One of the core outcomes of Phase 4 was improving GDN and FRS CO data collected during incidents. To do this, changes to CO incident data collection processes were co-designed and recommended to all the GDNs and the FRS. These improved attributes have been trialled by the GDNs (outside of BAU activities). Phase 5 will further progress this activity, by ensuring that GDNs have a clear and defined roadmap to formally improve their data collection process • CO incident follow-up process: A key activity in Phase 4 was the initial development of a CO incident follow-up process, designed to ensure that no customer is left behind after a GDN (Gas Distribution Network) visit that resulted in capping the gas at the meter or isolating the appliance in response to a carbon monoxide (CO) incident. Eligible customers whose gas supply or appliance is disconnected are offered free servicing to facilitate reconnection of their supply. Other customers are advised to contact their gas service provider. However, data suggests that some customers are inadvertently left without follow-up, potentially putting them at risk of cold homes, no cooking facilities or hot water due to a lack of further action to restore their gas supply. Phase 4 focused on establishing a high-level follow-up process to support customers who did not meet eligibility criteria, and who had been disconnected by their GDN. In Phase 5, we will refine this process further to create a semi-permanent follow-up system that can proactively address such incidents and ensure customer safety and provide insight into what might be required for a more permanent process. In addition to the above, Phase 5 introduces additional activities as part of the demonstrator, to enhance support to vulnerable customers. • Collaborative CO awareness campaign: Cadent and the other GDNs will partake in a collaborative CO awareness campaign to share key insights from new data analysed and captured in CORA. The insights will help inform CO awareness and intervention strategies for the GDNS & other stakeholders • Leaflet and poster distribution to GP surgeries/pharmacies: Phase 5 will engage healthcare organisations as active data and delivery partners in the ecosystem. To maximise the effectiveness of CO awareness initiatives, leaflets/posters will be distributed to a number of healthcare facilities. The aim is to increase awareness amongst healthcare professionals and patients • Customer to patient pathway tool: In Phase 5, the GDNs will collaborate with GPs (initially within Hammersmith and Fulham) to establish a patient referral pathway through a social prescribing network (a first of its kind), where GPs will refer patients to the local authority within the area, so potential causes of CO spillage can be addressed. The council, together with the GDN, will respond accordingly, ensuring that the referred patient/tenant can return to a safe home. • GLA's rogue landlord reporting: In Phase 5 we will utilise the GLA's rogue landlord reporting tool to report landlords breaching their CO duties (as identified from the CO incident follow-ups). We also aim to engage with the GLA to recommend improvements and assess the opportunity for regional scale • Fuel vouchers: In Phase 5 we will issue fuel vouchers to vulnerable customers referred to Cadent through the various initiatives • Energy efficiency measures: In Phase 5 we will respond to the insights from the environmental sensors, and regional insights on fuel poverty, and enable NEA to implement energy efficiency measures to those most in need. • 1-1 financial support: We will provide 1-1 financial support to those most in need. This can be targeted to people attending workshops and people highlighted from GP referrals. • In-home safety app: We will use HEAT and AICO's Resident app to improve CO awareness and energy efficiency services to customers most in need.

	In addition to the above, Sia Partners will undertake overall Programme Management support:
	
	• Ensure overall programme management of the Carbon Monoxide Partnership Ecosystem workload, this includes;
	  ○ Managing the engagement with COPE monthly / bi-monthly Steering Committee.
	  ○ Onboarding new stakeholders (e.g. healthcare providers) onto the Data Platform and Carbon Monoxide Partnership Ecosystem.

Why the Project is Being Funded Through the VCMA	**A. The project is forecasted to have a positive SROI.** Regarding social return on investment, the project has a point of difference when compared to the majority of Cadent funded VCMA projects. Cadent and SIA have analysed past and current Cadent fuel poverty initiatives to understand the average SROI ratio that was achieved when working in on a 1-2-1 basis. We believe that the CO partnership ecosystem approach has the potential to increase the SROI ratio on each pound spent by Cadent and other funding partners in the community. Cadent and the other GDNs' social value proxies are based on historic public health statistics on CO. Due to the previous limitations on data sharing cross-industry, we believe these statistics to be under-reported. The project's objective of improving our understanding the true prevalence of CO will update these statistics that feed into the GDNs' social value proxies. **B. The project will either:** **I. Provide to consumers in vulnerable situations, and relate to energy safeguarding, or** **II. Provide awareness on the dangers of carbon monoxide, Or** **III. Reduce the risk of harm caused by carbon monoxide.** The project relates to the provision of support to consumers in vulnerable situations and relates to Carbon Monoxide awareness and reduction of risk of harm caused by Carbon Monoxide. The CO Partnership Ecosystem project will design an approach that maximises the support delivered to consumers living in vulnerable situations, by directing funding, resources, and insight towards the common goal of raising awareness and reducing the risk of harm caused by Carbon Monoxide. The platform developed during Phase 1 has provided numerous insights on CO and has allowed the Partnership Ecosystem to define a number of insight led solutions that will minimise CO risk for consumers and enable the implementation of proactive measures for consumers in vulnerable situations. **C. The project has defined outcomes and the associated actions to achieve them.** This project has clearly defined outcomes and associated outcomes, the meeting of which will quantify success. Further information on the project's outcomes and associated actions can be found in the relevant section below. **D. The project goes beyond the activities funded through other price control mechanisms or required by licence.** **obligations** We believe that this project goes beyond activities funded through other price control mechanisms due to: a) the types of support proposed to be delivered to consumers in vulnerable situations, and b) the method in which this support will be delivered (i.e., through a partner ecosystem approach). **E. Not be delivered through other external funding sources** Directly accessed by a GDN, including through other government (national, devolved, or local) funding. Phase 5 of the project will be co-funded by Cadent, SGN and NGN's VCMA funding.

Evidence of Stakeholder/Customer Support	**Cadent** Cadent has been heavily involved in working to reduce the impact of CO poisoning in households, especially vulnerable customers, for more than a decade. However, understanding the true breadth of the issue, whether that is the number of deaths attributed to CO, or the number of workdays lost each year due to leaks, has always been challenging. It is a multifaceted problem, requiring clarity and structure in data collection, collation, storage, and reporting in an area where multiple organisations are working. Networks like Cadent, suppliers, contractors, health trusts, fire services, policy organisations, government departments and many more have all been working to solve the issue, yet given the scale and fragmentation of the problem, it has been challenging to fully scope the problem and track the improvements of any initiatives: no one organisation or government department has sole responsibility, hence the requirement for a joined-up approach. Throughout the RIIO-2 business planning process each GDN engaged extensively with customers and expert stakeholders to inform their customer vulnerability strategies. Common themes amongst all findings relate to high levels of customer support for GDNs utilising a wide range of techniques to raise awareness of CO, including the national helpline. All GDNs have customer challenge forums in place which have supported customer vulnerability strategies and advocated increased awareness being facilitated of the matters included in this scope. Research from Energy UK's 'CO Be Alarmed!' campaign reveals that over 17 million people in Britain are at risk from CO poisoning as they do not have a CO alarm in their home – despite nine in ten (94%) saying they are aware of the risk. Although this survey suggests awareness of CO is high, the evidence from our surveys on the ground so far during RIIO-2 suggests that knowledge is low. Of 8,000 people surveyed in 2020 45% didn't know that CO doesn't have a smell, and only 42% had a working audible CO alarm. Cadent conducted a series of engagement activities to gather stakeholder feedback on our RIIO-2 proposals, including carbon monoxide. Participants at our deliberative workshops, focus groups, and our domestic survey were consistently supportive of us raising awareness of CO and providing CO alarms to customers, particularly those in vulnerable situations. Participants in our focus groups were concerned that customer awareness of the full dangers of CO is low. Participants across all these events highlighted that the safety of employees and the public is their highest or joint-highest priority. Scientific and medical stakeholders undertaking research have indicated that there is evidence to show health can be compromised in people who are exposed to levels of CO that do not trigger CO alarm sounding. There is support for the GDNs to develop awareness, data and interventions around this. **SGN** During 2023, SGN's Customer and Stakeholder Engagement Group and Vulnerable Steering Group doubled our original business plan commitment to support 500,000 vulnerable households, those most at risk of living in a cold and unhealthy home. SGN have used data and insights to develop our VCMA programme, this has underpinned how this commitment to support those most in need has evolved from a strategic ambition into an extensive partnership-based delivery programme. Throughout 2024, our VSG and Partnership network has provided ongoing guidance to SGN, reiterating importance of impactful partnerships that co-ordinate activities with others to support those most in need. **NGN** Asking our stakeholders what's important – using our wide range of engagement mechanisms from strategic workshops to customer perceptions, we asked stakeholders to prioritise what is most important to them. Since 2019 we've held regular workshops with our stakeholders, about Customers in Vulnerable Situations (CIVS). This ensures that we are well informed to address the needs of customers across our network and through collaborative projects.

	During one of our stakeholder engagement sessions, it was identified that there is an increased risk of CO due to not being able to get appliances repaired or maintained because of financial hardship. Maintaining and repairing or replacing appliances was not a priority for these groups, therefore this significantly increased the risk of CO poisoning. Stakeholders said there needed to be more focus on CO awareness, so customers understand the risks posed by not having appliances repaired or serviced. They see a strong correlation between safety and the gas networks social obligations and said that it is essential that we continue to raise awareness of CO, because doing so saves lives. Each year we undertake CO and PSR research, our most recent research (January 2024) informed us that targeting awareness campaigns towards younger customers and future billpayers is a priority for CO awareness. These groups tended to see the lowest general awareness of CO, furthermore, future billpayers have the lowest awareness of the causes of CO build up. This project aligns with this need and addresses these issues.
Outcomes, Associated Actions and Success Criteria	The success of Phase 5 will be based on the following outcomes: 1. New stakeholders are engaged and added to the CORA platform. 2. Existing data within the CORA platform is enhanced. 3. New data is added to the CORA platform from existing and newly engaged stakeholders. 4. The future vision of the CORA platform and its desired end-state are all identified and agreed with stakeholders; ensuring that CORA is set for long-term use by the stakeholders. 5. A roadmap to switching CORA to its agreed end-state (i.e. a new platform host etc) will be developed and agreed with the stakeholders. 6. A semi-permanent and proactive CO incident follow-up process will be implemented with all GDNs. This is a key progression from the Phase 4 work that was being undertaken in relation to CO incident follow-ups. 7. A roadmap will be developed for implementing recommended CO data collection improvements within GDN's processes. 8. Phase 5 trial will be delivered with partner stakeholders and tangible outcomes will be achieved by June. Assessment of the trial and tracking of the benefits will commence post June. The trial may continue beyond June. 9. Long term funding opportunities are secured to transfer the Partner Ecosystem into a multi-stakeholder funded project, rather than a GDN solely funded project. This will ensure that the CO Partner Ecosystem is self-sustaining and scalable. The following outcomes are specific to the trial to be delivered 1. Hard-to-reach and vulnerable customers are better informed of the risks of CO, energy advice and income maximisation. 2. IoT CO alarms and environmental sensors will be provided to various households, that are most in need. 3. Use of IoT CO alarms will provide GDNs and other key stakeholders with early insights on issues that are increasing risks of CO exposure. 4. Minimise CO risk to customers by ensuring early detection of CO and detecting specific occupant behaviours that increase risk. 5. Use of IoT environmental sensors will detect potential risks of fuel poverty and exposure to mould, ensuring appropriate interventions are provided to mitigate risk. 6. Patients with CO symptoms are returned to safe homes, as their symptoms are reported to their housing provider. At the same time, CO awareness is prioritised within GPs, pharmacies and surgeries, to enhance awareness amongst healthcare professionals and patients. 7. Rogue landlords breaching their landlord duties (with regards to CO) are held accountable. 8. Energy efficiency interventions are provided for vulnerable households. 9. Fuel vouchers are provided to those in fuel poverty and in need, to help bring them back on gas. 10. CO awareness, energy efficiency and income maximisation advice are given to vulnerable and hard to reach groups. Heated blankets are also provided to those most in need. **The success of the trial will be measured by:** • 250 vulnerable and hard-to-reach customers are provided with CO awareness, energy efficiency and income maximisation advice during workshops/focus

	groups. Heated blankets and slow cookers will be provided to those in need. • 231 IoT CO alarms will be given to tenants through various avenues such as: London Borough of Hammersmith & Fulham (~35 alarms), Setting the Standards temporary accommodation inspection service (~ 8 alarms), a housing association (~173 alarms), and organisations representing those with existing health conditions (e.g. Alzheimer's Society) (~15 alarms). • 60 vulnerable customers will also receive an environmental sensor. This will monitor the temperature and conditions within the property. These properties will be chosen by the different stakeholders involved in the IoT trial (e.g. Hammersmith and Fulham, Alzheimer's Society, housing association etc). The environmental sensors will ensure proactive measures are applied to minimise risks of living in damp and cold homes • 1,000 vulnerable customers with appliances identified to be at risk and faulty will be provided with free boiler and appliance checks, to minimise their exposure to CO. 500 of these customers will be referred for a boiler repair, and 150 for a cooker repair. • 400 people will receive 1-1 income maximisation support via a partner charity. The aim will be to help customers access financial benefits as needed. In addition, some customers will be screened for eligibility of grant support. These customers will also be supported with PSR registration. • 500 customers will be referred to NEA for energy efficiency measures and interventions. • 1,000 customers will receive fuel vouchers to reconnect them to gas supply, in the event of a crisis. • 5,000 leaflets/posters will be distributed to GPs, pharmacies and surgeries to raise awareness of CO, PSR and energy efficiency advice. • 50,000 households will be provided with CO awareness, and energy efficiency via social media posts.
Project Partners and Third Parties Involved	Phase 5 project partners include (but are not limited to): **SIA Partners** **GDNs**: • Cadent • SGN • Northern Gas Networks • Wales & West Utilities **Fire & Rescue Services:** • London Fire Brigade (LFB) • National Fire Chiefs Council (NFCC) • West Midlands Fire & Rescue Service (WMFS) • West Yorkshire Fire & Rescue Service • Devon and Somerset Fire & Rescue Service • Scottish Fire **Insurance:** • HomeServe **Alarm and Sensing Equipment Manufacturers**: • Aico • Council of Gas Detection and Environmental Monitoring (CoGDEM) • Kane International **Healthcare:** • National Poisons Information Service (NPIS) • NHS England • Birmingham NHS • Northern Ambulance Alliance • St George's NHS Trust

	• National Poisons Information Service (NPIS) • NHS England • Northern Ambulance Alliance • Somerset Ambulance Service • Southeast Coast Ambulance Service • South Fulham Primary Care Network • St George's NHS Trust • Yorkshire Ambulance Service **Government and Regulatory Bodies:** • Building Safety Regulator (BSR) • Department of Levelling Up, Housing and Communities (DLUHC) • Health and Safety Executive (HSE) • UK Health Security Agency (UKHSA) • Office for National Statistics (ONS) • Public Health Wales • Home Office • London Borough of Hammersmith & Fulham • Marine Accident Investigations Branch (MAIB) • Tower Hamlets Community Housing • Commissioning Alliance - Setting the Standards **Charities** • Carbon Monoxide Research Trust (CORT) • CO-Gas Safety • National Energy Action (NEA) • Shelter • Alzheimer's Society **Other** • Alliance of London Environmental Health Managers • Boat Safety Scheme (BSS) • The Institution of Gas Engineers and Managers (IGEM) • Heating Equipment Testing and Approvals Scheme (HETAS)
Potential for New Learning	We believe that this project offers the GDNs and the wider industry opportunities for significant learning, including: • Understanding the true prevalence of CO and the distribution of CO incidents. • Understanding the importance of standardised CO data collection and the impact this has on protecting customers. • Understanding occupant behaviours that are potentially causing CO risk. • Developing a customer-to-patient pathway approach to ensure consumers presenting with CO symptoms are returned to a safe home. • Understanding and tackling problems centred around rogue landlords and CO tenant safety. Understanding how the partnership ecosystem approach works to minimise CO risks to consumers. • Bringing data together right across the industry to inform policy and effective interventions. • Understand how technology and data can be advantageous in providing a better experience for the consumer and services that protect them. Firstly, the project aims to design and ultimately test the benefits of a new way of working through the partner ecosystem approach. Energy networks have traditionally delivered their CO awareness initiatives via a one-to-one relationship with a single partner. This has resulted in scenarios where the partner has not had the expertise to offer services to serve all of the customers' needs, has not had a full range of data available or have been unable to use all of their expertise due to restrictions such as regulatory boundaries. The partner ecosystem approach will create a cohesive "patchwork" of funding and capabilities that should allow delivery partners to access a range of expertise and data and not be confined to the usual regulatory boundaries. Our hypothesis is that the project should show an increased SROI ratio, through the reduction in duplication, economies of scale, and maximising of benefits to individual customers.

	Secondly, the project will test the compatibility of funding pots and regulation between GDNs and DNOs. The partner ecosystem aims to engage and feature organisations from across the industry, including different types of energy network. DNOs and GDNs have different regulatory incentives and governance documents across GD2 and ED2, and the partner ecosystem project will test an approach that directs different regulatory allowances at a common deliverable. The GDNs and SIA aim to capture both the benefits and restrictions of this approach, and the outputs will help influence policy debate and business planning for future price controls. Additionally, the project will provide all GDNs with learnings on how value is apportioned. The GDNs have worked together to deliver collaborative Vulnerability and Carbon Monoxide Allowance projects through the first four years of GD2. On these projects, value is typically apportioned based on factors such as the proportion of funding provided by each network company or the split of forecasted outputs by network area. The GDN's and SIA Partners aim to apply a more advanced method for apportioning value that considers non-financial contributions (e.g., data) and referrals etc.
Scale of VCMA Project and SROI Calculations	**Background** The numbers of CO incidents within the U.K. are under reported, making it difficult for CO related interventions to demonstrate that they have been successful in reducing incidents and improving overall outcomes for customers and stakeholders. This project utilises an investment of **£**603,456 from the VCMA. Through this project, a holistic and new way of working was developed to allow for several stakeholders to come together and share their data and knowledge on CO. A critical achievement of the CO Partnership Ecosystem in previous phases has been the development of a data sharing platform, CORA, that allows for new insights to be generated from CO data being shared for the first time. The funding for Phase 5 will help further enhance and improve CORA, by enabling its integration as a BAU tool for key stakeholders. The funding will also enable new stakeholders to be engaged, new data to be analysed and added to CORA, and existing data to be improved so new insights are generated. The funding will also be used to identify new funding opportunities that can maintain the longevity of CORA and the CO Partner Ecosystem. Continuous improvement and evolution of CORA will allow for an enriched understanding of CO, allowing the GDNs to collaborate with other key stakeholders (e.g., fire and rescue services) to improve current approaches to tracking, documenting and addressing CO alerts, ensuring that customers are provided with timely and appropriate support to address potential CO spillage and receive medical attention. It will also allow the GDNs and the other stakeholders to use insights from CORA to deliver much more targeted and strategic initiatives and awareness campaigns. In addition to improve data sharing and CORA, the funding will also be used to deliver the Phase 5 demonstrator which has directly stemmed from stakeholder engagements in previous phases and insights captured from CORA. CORA platform has demonstrated various benefits and has informed various trials aimed at reducing CO risk to customers, and costs to society from CO exposure. **CORA has allowed stakeholders to access further insights on CO, such as:** • The total number of CO incidents occurring in England, Scotland and Wales. • High and lower-level exposures of CO (the latter has not previously been accounted for) within the U.K. • The societal costs of CO incidents to customers and stakeholders. • Tenant behaviours that are increasing CO risk (such as CO alarm head removals and infrequent alarm testing). • Geographical locations of CO incidents and potential correlations of CO with socio-economic demographics data.

- Occurrence of repeat incidents of CO within a dwelling, demonstrating a potential greater risk for certain households.
- Tenants that did not call their GDN when a CO incident occurred, indicating they ignored the alert.

The following benefits have been identified from using the platform:

- The visualisations and the maps shown in the platform can allow GDNs and fire and rescue services to better implement proactive measures in response to CO incidents and alerts.
- The platform has been used to support GDNs with their GD3 submission.
- The platform helps inform GDN CO strategies and enables them to refine their CO alarm distribution strategy.
- The platform will provide GDNs and fire and rescue services clearer direction on where to focus their CO awareness media campaigns.
- The platform will help GDNs with their vulnerability and operational strategies around CO.
- The platform has highlighted the need for further engagement and work to address battery failure issues.
- Alarm manufacturers indicated that the platform would help them to collaborate with GDNs to better understand and address the reasons for battery failure incidents (as reported by GDNs).

The Partnership Ecosystem is forecasted to have a positive SROI, the outcomes of which are provided below:

SROI calculation

Project information:

Name:	CO Ecosystem
WACC:	4.97%
Year of assessment:	2026
Start year of benefits:	2026
End year of benefits:	2026
Attribution:	0.00%

Non-standardised activity inputs:

Cost (discounted):	
GPV:	

Results:

Cost (discounted):	£603,456.00
Customer volume:	118202
GPV:	£2,392,946.43
NPV:	£1,789,490.43
SROI:	£2.97

The SROI for this project has been calculated utilising the ENA GDN Rulebook using the following activities:

- 231 IoT Smart CO alarms
- 60 Smart environmental sensors
- 5,000 individuals receiving CO, Energy efficiency and PSR advice via leaflets
- 500 individuals receiving 1:1 advice on CO, Energy efficiency and PSR
- 50,000 individuals receiving awareness on CO, PSR and energy efficiency through social media
- 20 individuals receiving a slow cooker and advice on using this to lower energy use
- 30 households being referred to the fire service for a safe and well visit
- 500 households being referred to NEA for substantial energy measures
- 500 households being referred to NEA for common measures
- 250 individuals being given advice via NEA workshops
- 250 individuals receiving a heated throw due to being in fuel poverty
- 500 households being referred to NEA for boiler repair
- 150 households being referred to NEA for cooker repairs

	• 1,000 households being referred to SBTM for a gas safety check • 400 people receiving 1:1 support on income maximisation for extra benefits • 100 individuals receiving advice on grant application • 1,000 individuals receiving fuel vouchers in crisis • 250 individuals receiving advice on scams • 1,271 individuals being registered to the PSR SROI £2.97
VCMA Project Start and End Date	1st April 2025 until 31st March 2026
Geographical Area	The project will take place across all four GDN's license areas.
Internal governance and project management evidence	Cadent, SGN and NGN have worked alongside SIA Partners to co-design this partnership and ensure that it aligns to the delivery of our collaborative Vulnerability Strategy and the VCMA governance criteria The SROI for this project has been calculated utilising the information shared by the ecosystem partners. We have based the SROI on those figures which has generated a forecast SROI of £2.97 using the GDN Rulebook. SIA Partners, Cadent, SGN and NGN will meet quarterly to review outcomes, learn, share best practice, ensure the correct customers are being supported, and address any delivery issues.

Gas Network Vulnerability and Carbon Monoxide Allowance (VCMA) Governance Document - PEA Control Table

In order to ensure that a VCMA project is registered in accordance with the Ofgem VCMA governance document (incl. project eligibility assessment), the below table should be completed as part of the project registration process.

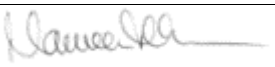
Stage 1: GDN Collaboration Group PEA Review
Date completed:
Review completed by:
Job title:

GDN:	Name(s):
Cadent	Gurvinder Dosanjh
SGN	Dan Edwards
NGN	Laura Ratcliffe

Stage 2: GD2CVG Panel Review
Date review completed:
Review completed by:
Job title:

GDN:	Name(s)
Cadent	Phil Burrows
SGN	Kerry Potter
NGN	Eileen Brown

Step 3: Participating GDN individual signatory sign-off

GDN	Name(s)	Signature(s)	Date
Cadent:	Phil Burrows		10/04/2025
SGN:	Maureen Mcintosh		09/04/25
NGN:	Eileen Brown		27/03/2025

Step 4: Upload PEA Document to the Website & Notification Email Sent to Ofgem (vcma@ofgem.gov.uk)
Date that PEA Document Uploaded to the Website:
Date that Notification Email Sent to Ofgem: