

Vulnerability & Carbon Monoxide Allowance (VCMA)

Project Eligibility Assessment (PEA)

Services Beyond the Meter

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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, replacement or servicing)	
In order to qualify as a VCMA project, a project must:	
VCMA Eligibility Criteria	Criteria Satisfied (Yes/No)
a) Have a positive, or forecasted positive Social Return on Investment (SROI), including for the gas consumers funding the VCMA project;	Yes
b) Either: <ul style="list-style-type: none"> 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 these;	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, repair and replacement projects	
In order to qualify as a VCMA project, unsafe pipework and essential gas appliance servicing, repair or replacement must meet the following criteria:	
a) A GDN has to isolate and condemn unsafe pipework or an essential gas appliance following a supply interruption or as part of its emergency service role;	Yes
b) The household cannot afford to service, repair or replace the unsafe pipework or essential gas appliance; and;	Yes
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 servicing, repair or replacement.	Yes
Section 3 - Eligibility criteria for collaborative VCMA projects	

In order to qualify as a collaborative VCMA project, a project must:	
a) Meet the above company specific and boiler repair and replace (if applicable) project eligibility criteria;	N/A
b) Have the potential to benefit consumers on the participating networks; and	N/A
c) Involve two, or more, gas distribution companies.	N/A

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

Information Required	Description
Project Title	Services Beyond the Meter
Funding GDN(s)	Cadent
Role of GDN(s) *For Collaborative VCMA Projects only	N/A
Date of PEA Submission	April 2021
VCMA Project Contact Name, email and Number	Name: Earl Richards Email: earl.richards@cadentgas.com Phone: 07773 073496
Total Cost (£k)	£407,055.00 (broken down as follows) <ul style="list-style-type: none"> • Training facility £120,000.00 • Engineers x30 with tools and equipment £45,000.00 • Work Management costs (FTE time) £35,000.00 • Engineering time £200,000.00 • Vulnerability training £7,055
Total VCMA Funding Required (£k)	£407,055.00
Problem(s)	Our engineers enter the homes of thousands of customers each year and often come across customers living in the most vulnerable situations. When responding to a gas emergency incident or other work relating to the distribution network, our engineers' primary focus is to ensure that the property and our customers are safe. This includes

	<p>assessing for direct dangers including gas or carbon monoxide (CO) leaks and any appliances that are classified as unsafe.</p> <p>In these instances, we would isolate the supply of gas to homes, making the customer safe if a faulty appliance or faults with pipework are identified within the property. On occasions this process can leave customers vulnerable and off gas as a result of our work.</p> <p>Customers living in vulnerable situations, including those in fuel poverty are more likely to have a problem with their internal gas supply linked to CO, as well as having an increased reliance on their gas supply and being less able to fix an issue if one is identified.</p>
<p>Scope and Objectives</p>	<p>The objective with this project is to provide a follow-on service for customers living in vulnerable situations if their gas installation is suspected to be emitting CO and has been isolated by Cadent.</p> <p>We use our engineers to re connect customers within a short timeframe, aiming for 24-hours. This not only reduces the risk of self-re-connection but also provides a way for those who could not otherwise afford to pay for the necessary follow-on work to receive the necessary work completed for free.</p> <p>This PEA covers the first year of a planned multi-year delivery plan. In year 1 of the project, we will create a new training facility to train and assess our engineers on the skills required to undertake work beyond the gas meter and in the home of customers living in vulnerable situations. We will look to train and upskill between 25 - 30 Cadent engineers with additional qualifications to facilitate this work.</p> <p>The new process will allow our engineers to investigate suspected CO and fumes following an initial emergency visit to establish what action we can take.</p> <p>The second visit, by an engineer with additional training and skills, will check the property for the migration of CO from other sources. Once satisfied that there is no migration of CO then the Engineer will carry out ambient room testing when the suspect appliances are in use.</p> <p>If the testing is satisfactory our engineer will inspect, maintain/ service and test the appliance and then</p>

the Engineer will re-instate the customers supply and their appliance/s.

Our engineers will also be trained to provide or refer a customer for energy advice, add them to the PSR or any other support required that can benefit the customer. They will have been through NEA created vulnerability training that will allow them to spot vulnerability in our Customers homes.

Additionally, the engineer will issue a CO alarm (where required) and educate the customer about the dangers of CO and gas safety. This is done through conversations and leaving appropriate literature.

From their training, engineers will be able to undertake further services beyond the meter work types including:

- Pipework faults, trace, and repairs – repairing pipework issues which fall outside of our licence condition - making a repair within 30 minutes of arriving on site.
- Safety inspections on appliances – Applies to appliances that have not been checked within 12 months.
- Servicing of appliances – Applies to appliances which may be at risk of emitting CO and have not been serviced or checked within the last 12 months.

All the above services are offered to customers who are on, or who qualify to be on the PSR.

The project will be implemented over two phases:

Phase 1 - 21/22	Phase 2 – 21/22
<ul style="list-style-type: none"> • Submit a deviation and gain approval from engineering services / policy to undertake fumes investigation work and other services beyond the meter work types • Take several engineers from different locations in the networks and re-assess them on their competencies to work on appliances and downstream of the Gas Meter • Once re-assessed we will upskill the engineers to hold CMDDA1. • Train the engineers internally and send externally for initial assessment for CMDDA1. 	<ul style="list-style-type: none"> • Utilise our training centre in Hitchin to accommodate the training and upskilling of the additional competencies that our engineers require to do this work type. • Work alongside our IS process teams to create a work type for our engineers to raise these work orders via their field force devices. Removing the manual side of the process in creating another work order. • Evaluate the pilot and address any blockers. Document and build on the successes. • Prove there is value in a GDN undertaking this work and

	<ul style="list-style-type: none"> Brief operational & customer teams on the process prior to go live. Pilot the process in parts of the Eastern network and the North West Network with a small number of engineers. Test the process and identify any blockers and document the successes. Use existing manual task to create a further work type and capture data from the pilot to form a new work task for wider roll out of the project. 	<p>proving there is a positive SROI.</p>
<p>Why the Project is Being Funded Through the VCMA</p>	<p>This project is helping to directly address a key challenge being faced by customers in vulnerable situations every single day. In light of the cost-of-living increases being felt across the UK, this project is part of our work to support customers living in fuel poverty, helping them stay safe, warm and independent in their homes.</p> <p>We have assessed the project against the seven eligibility criteria and it passes them all. The scope of the project goes considerably further than what could otherwise be classed as 'business-as-usual' and we believe it is pushing new boundaries in ways in which GDNs can support its most vulnerable customers.</p> <p>When attending works on the Cadent network within customers' homes the result can be that the customer is left without gas either due to a leak on their internal installation, suspected carbon monoxide or due to lack of maintained/ serviced appliances. Due to the financial constraints people find themselves in, this could result in the customer staying off gas or self-reconnecting. Both of these outcomes have a direct and negative impact on their health and wellbeing.</p> <p>This project provides a tool for our engineers to offer the customer more to keep them on gas and warm within their home.</p> <p>If an issue is found, then the Engineer will have the skill and competence to either repair the problem or isolate a particular appliance and leave the customer with heat or cooking facilities.</p>	
<p>Evidence of Stakeholder/Customer Support</p>	<p>We have conducted extensive stakeholder and customer feedback to hone and shape our strategy for supporting customers living in vulnerable situations in RIIO-GD2.</p> <p>Key Stakeholders engaged for this project:</p>	

Gas Safe Register | Head of Stakeholder & Large Business Relationships

“This is a great idea as there is circa 140,000 registered engineers on the Gas Safe Register yet there are only circa 2,000 of them that carry the CMDDA1 qualification. Having the ESP (emergency service providers) engineers being able to react to this work, it will be a great outcome for consumers in vulnerable situations where a trusted competent engineer can deem what remedial work, if any, is required”.

HSE | Downstream Senior Gas Investigation Policy Officer

“This is great area of work to explore to reduce the impacts of CO on Gas consumers. If Cadent engineers can carry out this work, then why wouldn't they as they're the first responders on site”.

BEIS | Policy Advisor

“What a great idea to go a step further to support your customers in vulnerable situations. It's great to see Cadent taking an initiative in this area of work and utilising their field operatives to give a better customer experience”.

NEA – National Energy Action | Project Management & Policy Team

“This is potentially a great lifeline for the people who wouldn't be able to afford a Gas Safe Registered engineer to reinstate their supply after an investigation has taken place. Nor would these consumers have an engineer to call in the first place. Using your existing workforce to help the people who need it the most can only result in a positive outcome for all involved”.

Citizens Advice | Customer Engagement Team

“You can provide a better service for your customers who would usually be left without Gas. Providing this service to your customers in vulnerable situations is really showing that Cadent are focusing more on their customers than ever before. We would like to see this happen”.

Customer and stakeholder insight / feedback around CO

Stakeholders recognise the value of Cadent's work on CO and want to see networks adopt innovative new approaches to eradicate the dangers E.g.,

	<p>targeting dangerous appliances, repairing / replacing where appropriate.</p> <p>Strategy / policy</p> <p>“Ofgem / Industry bodies want to see networks go above and beyond the minimum level of service and deliver services with a strong social return on investment to protect the most vulnerable.</p>
<p>Information Required</p>	<p>We have in the region of 5-10% of our engineers in each region who hold the relevant competencies to undertake this type of work which is downstream of the meter and to work on appliances. Typically, these competencies are:</p> <ul style="list-style-type: none"> • CCN1 + CPA1(Core & Flue Gas Analysis) • CENWAT (Central Heating boiler & Water heaters) • HTR1 (Fires & Wall heaters) • CKR1 (Cookers) <p>For our Engineers to undertake suspected CO investigation work beyond their normal duties a reassessment is required and training and assessment of CMDDA1 - Carbon Monoxide / Carbon Dioxide Atmosphere & Appliance Testing to BS-7967 & BS-7967 / 5.</p> <p>This enables the engineer to carry out CO/CO2 and combustion performance testing using electronic portable gas analysers on domestic gas appliances following indication of fumes, smells, spillage or leakage of combustion products, CO detector activation etc.</p>
<p>Outcomes, Associated Actions and Success Criteria</p>	<p>We aim to re-instate our customers’ supply after we have made safe (as per current licence obligations) following a report of CO alarm activation / suspect of fumes, or a fault on the customers installation.</p> <p>The aim for this is to be done either the same day, the next working day, or a date to suit the customer.</p> <p>Success is re-instating the customers gas supply within a working day and to not leave the customer in a vulnerable situation by having an isolated gas supply or ensuring the customer doesn’t self-reconnect their supply.</p> <p>Additionally, we will issue customers a new CO alarm to those who don’t have one or require a replacement as well as raising their awareness relating to Gas Safety, CO, the PSR, and any support that will benefit them.</p>

	<p><u>Targeted number for the below services in year 1:</u></p> <ul style="list-style-type: none"> • 300 CO Investigations • 50 Gas appliances serviced • 25 Pipework installation repairs • 120 Engineers trained to spot and support on vulnerability <p>Of the 375 customers above we would also look to support further by offering:</p> <ul style="list-style-type: none"> • 60 Energy Advice conversations/ referrals • 60 PSR registrations (a proportion may/ will be on the PSR already) • CO alarms - all properties that require one.
<p>Project Partners and Third Parties Involved</p>	<p>N/A</p>
<p>Potential for New Learning</p>	<p>Areas for new learning throughout this project include:</p> <ul style="list-style-type: none"> • Potential scope for GDNs to work downstream of the gas meter to not leave a customer in a vulnerable situation relating to CO / fumes and support such as appliance checks and rectifying pipework faults • Take learning and success (getting a customer back on supply in short time) from the project and look to mirror in other process' • Train and upskill our engineers to identify in greater detail appliances that are at risk of CO • Identify appliances that are most common in customers' homes who are vulnerable and the ones that are at risk of CO. This will allow us to take a proactive approach to these appliances when we come across them in other homes. • Have a workforce that can work on appliances in other process' that may be involved in the future of Gas (conversion to Hydrogen)

Scale of VCMA Project and SROI Calculations

In year 1 there is an initial upfront cost to start the project i.e., the setting up of the training facility, procurement of tools/ equipment and training requirements for the engineers. These costs are largely sunk costs and therefore, the net benefits of this project will increase in subsequent years.

We have calculated the SROI benefits case in conjunction with SIA partners, who have expertise in calculating SROI within the energy industry. They have identified 3 key areas that generate SROI from the services being offered:

- Health and Safety benefits
- Financial benefits
- Wider services (PSR, Energy Advice)

SROI:

Year 0-1 Current:

This is calculated by Cadent supporting the targeted number (year 1 pilot phase) of customers within the network.

Forecasted 5-year gross present value

The total gross present value of £612,000.00 can be broken down into the following categories

- Health & Safety Benefits 45% = £275,400.00
- Financial Benefits 35%= £214,200.00
- Wider Services (PSR, energy Advice) 20% = £122,400.00

SROI, based on supporting 375 customers (this year) = **£0.53**

- Total investment = **£400,000**
- Total Gross present value Year 1 = **£612,000**
- Social return of investment = **£212,000**

This PEA only covers year 1 of the project. However, for reference, the benefits estimated by delivering scaled up volumes as well as adding in different types of work types in future years (which will ultimately form a new PEA document) are shown below

Year 2-5:

5-year benefit:

- Health & Safety Benefits = 49%
- Financial Benefits = 36%
- Wider Services (PSR, energy Advice) = 15%

The current project is within the pilot phase and not yet at full capacity.

As such, Cadent has worked on the assumption that the service will be offered to 10% of the customer group (20% of all customers).

For the purpose of this project, the customer group is defined as the 20% of most vulnerable households

SROI, reaching 300 (10%) customers who are eligible for the service = **£2.03**

The project has been piloted across a small number of Cadent areas.

Cadent forecasts that the total volume of suspected carbon monoxide work orders in these areas is 15,000 per year.

Cadent has made the assumption that 20% of these visits will be to customers that qualify as vulnerable. This equates to 3,000 jobs.

Services Beyond the Meter work types will be offered to 10% of this customer group equating to 300 jobs.

Year 5+:

We believe that this project will not be fully embedded until midway through RII02.

SIA Partners have evaluated the 5-year gross present value of delivering services beyond the meter once fully implemented across the Cadent networks.

5-year benefit:

- Health & Safety Benefits = 50%
- Financial Benefits = 36%
- Wider Services (PSR, energy Advice) = 14%

SROI, reaching 20% (the main target) of customers who are eligible for the service = **£2.20**

	<p>While we have the above current SROI projections there are still calculations ongoing to incorporate the benefits of maintaining appliances, repairing pipework installations, and leaving the customer with a CO alarm.</p> <p>Once these calculations and projections are complete, we expect this to increase the SROI figure further.</p>
VCMA Project Start and End Date	04/2021 – 03/2022
Geographical Area	<p>Through year 1 of the pilot phase and starting the project we will offer this service across the areas in the below networks:</p> <ul style="list-style-type: none">• Eastern (East Midlands and East Anglia)• North West• West Midlands
Remaining Amount in the Allowance at Time of Registration	TBC

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: Sustainability & Social Purpose Team PEA Peer Review	
Date Immediate Team Peer Review Completed: 17/03/2022	Review Completed By: Gemma Norton
Stage 2: Sustainability & Social Purpose Team Management Review	
Date Management Review Completed: 16/03/2022	Review Completed By: Philip Burrows
Step 3: Director of Sustainability & Social Purpose Sign-Off: Mark Belmega	
Director of Sustainability & Social Purpose Sign-Off Date: 31/03/2022	
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: March 2022	
Date that Notification Email Sent to Ofgem: March 2022	