

Vulnerability & Carbon Monoxide Allowance (VCMA)

Carbon Monoxide Summer Campaign
2021 CO Safety while enjoying the outdoors this summer

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June 2021*



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

Section 1 - Eligibility criteria for company specific projects (excluding boiler repair & replacement)	
In order to qualify as a VCMA project, a project must:	
VCMA Eligibility Criteria	Criteria Satisfied (Yes/No)
a) Have a positive Social Return on Investment (SROI), including the potential to have a Net Benefit to the customers on the funding GDN's network(s);	Yes
b) Either: <ul style="list-style-type: none"> i. Provide a direct Net Benefit to consumers in vulnerable situations, or ii. Provide awareness on the dangers of CO, or iii. Reduce the risk of health issues caused by CO; 	Yes Provide awareness on the dangers of CO
c) Have defined outputs and deliverables;	Yes
d) Have defined outcomes, where considered appropriate by the GDN;	Yes
e) Relate to energy, or CO safety;	Yes
f) Go beyond activities that are funded through another price control mechanism or required through licence obligations; and	Yes
g) 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 boiler repair and replacement projects	
Condemned boiler repairs or replacements are eligible as VCMA projects where:	
a) A GDN has to isolate and condemn an unsafe boiler following a supply interruption or as part of its emergency service role;	NA
b) The household cannot afford to repair or replace the boiler, and;	NA
c) Sufficient funding is not available from other sources (including national, devolved or local government funding) to fund the boiler repair or replacement.	NA

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;	NA
b) Have the potential to have a direct Net Benefit to customers on the participating networks; and	NA
c) Involve two, or more, gas distribution companies.	NA

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

Information Required	Description
Project Title	Carbon Monoxide 2021 Summer Campaign
Funding GDN(s)	Cadent
Role of GDN(s) *For Collaborative VCMA Projects only	N/A
Date of PEA Submission	July 2021
VCMA Project Contact Name, email and Number	Hayley Tranter Hayley.tranter@cadentgas.com Suzanne Callington Suzanne.callington@cadentgas.com
Total Cost (£k)	£153,742
Total VCMA Funding Required (£k)	£153,742
Problem(s)	<p>Carbon Monoxide (CO) remains a prevalent risk to households in 2021. Approximately 2,000 people across England are hospitalised due to suspected CO poisoning each year, with a further 40 deaths reported.</p> <p>The installation of an audible CO remains one of the most effective methods of mitigating the risk of CO poisoning. However, recent statistics report relatively low alarm ownership across Cadent's networks, with between 60%-70% of homes across Cadent's four networks not having an audible CO alarm installed.</p> <p>CO alarms are widely recognised as a critical in-home safety device. However, Cadent also recognises the importance of educating people on the risk of exposure to CO when outside of their homes; for example whilst enjoying BBQs and holidays. Since the start of the Covid-19 pandemic, sources suggest that there has been a 300% increase in bookings of UK-based holidays. Therefore, it is important that people are still fully aware of the dangers whilst away from their home.</p> <p>As well as an increase in UK-based holidays, the Covid-19 pandemic has also created a lot of financial hardship for many families across the country. Financial difficulties due to the pandemic can also mean that families can no longer afford to get appliances serviced and repaired. This is shown by demand for installing, servicing and repairing boilers shrinking by 34 per cent during a year of the pandemic. This, coupled with many families not having the financial means to purchase a CO alarm greatly increases the risk of exposure to the dangers of CO.</p> <p>The problem(s) of low alarm ownership, increased risk of exposure to CO whilst holidaying in the UK and the impacts of Covid-19 has led to Cadent developing a Summer campaign that uses innovative techniques to reach the most at-risk customers.</p>
Scope and Objectives	<p>The overall scope of the project is to design and deliver a Summer-based informative campaign, that centres on the risks posed by CO, both at home and whilst on holiday.</p> <p>In total, the expected reach of the Summer Campaign project is approximately 23,000,000 - further information on these calculations can be found in the "Outcomes, Associated Actions and Success Criteria" section of the PEA.</p>

	<p>Cadent's main objective will be to educate customers travelling and/or living on its networks on CO's signs, symptoms, dangers and preventative measures. This will be achieved through the use of partnership work with advertising agencies, allowing Cadent access to their expertise on effectively engaging customers on an important safety message.</p> <p>The campaign will target all four of Cadent's networks, with concentrated messaging in popular UK holiday areas that have been identified through our Hotspot 2020/2021 data on reported CO jobs.</p> <p>As part of the campaign, we will develop and implement a detailed communication strategy that will utilise a multi-method approach.</p> <p>The campaigns approach will include:</p> <ul style="list-style-type: none"> • Social media adverts, • Online adverts, • Advertisement posters in M6 wash rooms, • London underground advertisements, • Fun Kids Radio audio adverts, online videos and competitions, • Digital advertisement screen vans and digital advertisement bill boards, • Animated videos, and, • Stakeholder engagement with MP's and leading industry experts. <p>As well as having the overall objective of educating customers, the project also aims to produce a positive social return on investment (SROI) - further detail on calculations included below.</p> <p>Beyond achieving the forecasted total reach of 23,000,000, the campaign, through education, also aims to create an increase in the ownership of CO alarms. This may in turn lead to an increase in the number of reports of suspect CO to the gas emergency service, as instances of CO are more likely to be correctly identified and reported.</p>
<p>Why the Project is Being Funded Through the VCMA</p>	<p>We believe that the Summer Campaign meets all of the necessary VCMA project eligibility criteria as evidenced below. As such, Cadent considers this project to be a very effective spend of its regulatory allowances.</p> <ol style="list-style-type: none"> 1. Have a positive, or a forecasted positive, Social Return on Investment (SROI) including for the gas consumers funding the VCMA Project; <p>Learning from previous projects and evaluations conducted by Sia Partners inform us that raising awareness and educating customers on the dangers of CO can provide positive social return.</p> <p>We believe this project has the deliverables necessary to generate a positive SROI. More information on the project's SROI can be found in the relevant section below.</p> 2. Either: <ul style="list-style-type: none"> • Provide a direct Net Benefit to consumers in vulnerable situations, or • Provide awareness on the dangers of CO, or; • Reduce the risk of harm caused by CO.

	<p>The project will both provide awareness on the dangers of CO and reduce the risk of harm caused by CO.</p> <p>Awareness will be raised through engaging customers that are both holidaying and at home with innovative communication methods including: digital billboards, motorway service station advertising and DAB radio.</p> <p>Risk of harm caused by CO will be reduced through the issuing of information on the signs and symptoms, as well as preventative measures.</p> <p>3. Have defined outcomes and the associated actions to achieve these;</p> <p>More evidence will be detailed in the relevant section below, but we have outlined clear project outcomes, actions and success criteria.</p> <p>4. Go beyond activities that are funded through other price control mechanisms or required through other licence obligations;</p> <p>We believe that the innovative communication methods utilised through this project demonstrate that this campaign goes outside of BAU activities funded through other price control mechanisms.</p> <p>5. Not be delivered through other external funding sources directly accessed by a GDN, including through other government (national, devolved or local) funding;</p> <p>This project will be delivered solely with VCMA funding and a clear structure will be in place to ensure that all aspects of the project are allocated against the VCMA funding.</p>
<p>Evidence of Stakeholder/Customer Support</p>	<p>Cadent conducted extensive stakeholder and customer feedback in order to shape its strategy for investment of VCMA funding, particularly for projects centred around CO.</p> <p>Stakeholders from Katie Haines Memorial Trust, Ground Work, Citizens Advice, BEIS and NEA reported that general public awareness on carbon monoxide was high, and that a general understanding on the dangers of CO exists.</p> <p>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 during RIIO-1 suggests that knowledge is low. Cadent CO survey data from 5010 respondents rated their knowledge as 5.07/10 on average.</p> <p>This survey data supports a need for Cadent to tackle this gap in knowledge for some customers.</p> <p>Cadent conducted a series of engagement activities in order to gather stakeholder feedback on our RIIO-2 proposals, including carbon monoxide.</p> <p>Participants at our deliberative workshops, focus groups, and our domestic survey were consistently supportive of us raising awareness</p>

	<p>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.</p> <p>Cadent also received stakeholder feedback on the importance of a cohesive approach to supporting customers and making every contact count.</p> <p>Cadent has acknowledged this stakeholder feedback and we have specifically chosen these methods of communication because of the high customer reach the important messaging will be received by.</p>
<p>Outcomes, Associated Actions and Success Criteria</p>	<p>The project centres around Cadent increasing awareness on the dangers of CO and how customers can keep safe this summer. In particular, customers will be educated on:</p> <ul style="list-style-type: none"> • The signs, symptoms and dangers of carbon monoxide, • Advice on preventative measures. <p>The Summer Campaign will be broken down into a series of separate activities, each activity targeting a different demographic containing customers at risk of exposure to the dangers of CO.</p> <p><u>Fun Kids Radio Activities</u></p> <p><u>Project Outcomes</u></p> <p>Cadent has partnered with children's radio station Fun Kids to raise awareness on the dangers of CO amongst a younger audience.</p> <p>The partnership with Fun Kids will deliver the following outcomes:</p> <ul style="list-style-type: none"> • The broadcasting of a 10-part audio series on CO; • 10 videos to support the audio series; • The launching of a competition for young listeners; • The creation of a CO Crew website linked branded webpage of the Fun Kids radio website • The development of a CO newsletter that will be included in Fun Kids database of listeners. <p><u>Delivery</u></p> <p>The CO related audio series will be broadcasted for 8-weeks, playing 21 times each week. Evidence from our project partner suggests an expected reach of 243,000.</p> <p>The audio series will also be available for playback on the Fun Kids website. Statistics suggest an expected reach of 180,000.</p> <p>Statistics from previously delivered initiatives and industry data suggest that the Fun Kids videos available through their YouTube channel will be viewed 5000 times per week.</p> <p>The audio series will also be available through podcast downloads. We forecast a reach of approximately c.20,000 per week.</p> <p>The website is forecasted to achieve 2000 views over the duration of the project.</p>

Cadent predicts that the CO newsletter will be opened by 8000 customers.

National BBQ 2021 2 weeks

Project Delivery

Cadent has partnered with National BBQ week to promote the dangers of CO - as risk of exposure can be heightened when BBQ.

The partnership with National BBQ week will deliver the following outcomes:

- Cadent and National BBQ week will create a dedicated panel on the supporter's webpage of their website. This panel will educate enthusiasts on the potential increased risk of exposure to CO whilst BBQing.
- CO awareness messaging will be distributed through National BBQ week's social media channels.
- Cadent and National BBQ week will develop specific gas safety content to be featured on National BBQ week's website.
- Partners will distribute BBQ safety leaflets featuring carbon monoxide-specific content across 3 industry roadshows.

Project Outcomes

- The expected total reach for National BBQ week's website activities is c.90,000.
- The expected number of social media interactions is 220,000.
- Partners will distribute BBQ safety leaflets containing CO content at industry roadshows. These roadshows have an estimated combined footfall of 120,000.

Service Station Washroom Panels

Project Delivery

The M6 motorway is popular route used by British holiday makers and commuters and stretches across much of Cadent's North West and West Midlands networks. Cadent has partnered with an advertising agency to design and display panels in service station washrooms. The panels focus on BBQ safety and the importance of taking an audible CO alarm on holiday.

- Cadent will target 20 service stations situated along a 160 mile stretch of the M6 motorway - this will dissect Cadent's North West and West Midlands networks.
- 264 posters containing information on BBQ safety and the importance of packing a CO alarm when holidaying will be displayed at the service stations. This aspect of the Summer Campaign will run for 8-weeks.

Project Outcomes

- The project expects to reach circa 4.9m customers across the 8-week duration of the service station campaign.

London Underground stations

Project Delivery

Cadent has partnered with an advertising agency to design and have access to advertising spaces situated in North London's underground stations.

Greater London witnessed the most incidents relating to deaths from unintentional carbon monoxide poisoning (60) from 01/09/1995 to 31/08/2018.

- The project consists of designing and displaying 100 posters in 25 of the major London underground stations within Cadent's Network.
- 2 poster designs will be displayed, one that centres on BBQ safety, and another that focusses on packing a CO alarm for holiday.
- The posters will be displayed for 2-weeks.

Project Outcomes

Expected reach: Will be seen approximately 12m times

Online adverts

Project Delivery

Cadent will promote the Summer Campaign's messaging through targeted advertising using online platforms. The messaging will target areas of high deprivation and historic reports of suspect CO identified through social mapping.

The project will target customers through the use of Facebook, LinkedIn, Twitter, Google and a dedicated Summer CO webpage on Cadent's website.

- The adverts will utilise 2 designs based on BBQ safety and packing a CO alarm for holiday. The online advertising will run for a period of 8 weeks across Summer.
- The project aims to achieve 150,000 views across social media and Cadent's webpages.

Project Outcomes

Expected reach: we forecast that the project will create 5.2m customer impressions.

Roadside digital boards

Project Delivery

This sub-project centres around Cadent partnering with an advertising agency to create and run a roadside digital billboard campaign.

	<p>The billboard campaign will use targeted locations in English holiday hotspots and in communities that have witnessed historically high reports of suspected carbon monoxide.</p> <ul style="list-style-type: none"> • The billboard campaign will focus on two designs centred on BBQ safety and packing a CO alarm for holiday. • The messaging will be broadcasted across 50 screens for 8 weeks in Cadent's networks. • Cadent estimates that the advert will be played 1.8m times. <p><u>Project Outcomes</u></p> <p>Cadent forecasts that the project is expected to create 5.7m customer impressions</p> <p><u>Digital Advertisement Screen Mobile Vans</u></p> <p><u>Project Delivery</u></p> <p>As well as carbon monoxide safety advertisements on fixed roadside digital billboards, Cadent will also utilise mobile digital advertisement vans to visit English holiday hotspots.</p> <ul style="list-style-type: none"> • The digital vans will visit locations across 13 popular holiday and tourist locations in our networks. • This sub-project will run for 11 days in total. <p><u>Project Outcomes</u></p> <p>The project expects to achieve 18,750 views per day over the 11-day period in which it is live.</p> <p><u>Project Outcomes</u></p> <p>This forecast is based on an average of 37,500 views being achieved in areas of high footfall. We have applied a 50% reduction to account for the holiday hotspot areas, where footfall is not as high or as consistent as levels of city centres etc.</p> <p>EXPECTED TOTAL CAMPAIGN REACH: 23,000,000</p>
<p>Project Partners and Third Parties Involved</p>	<p>Cadent will be working with expert project partners including:</p> <ul style="list-style-type: none"> • S3 Advertising; • Fun Kids Radio; • National BBQ week; • Bonanza Creative
<p>Potential for New Learning</p>	<p>Cadent believes that this project offers several opportunities for new learning.</p> <p>Firstly, Cadent's historic carbon monoxide awareness projects have focussed on the signs, symptoms, causes and preventative measures for CO.</p> <p>This campaign focusses on alternate messaging on CO safety not previously considered, such as the risks posed by BBQs and CO safety whilst on holiday.</p>

	<p>The uptake in messaging and the number of interactions/views will help inform Cadent on whether there is a need and interest from customers.</p> <p>Secondly, Cadent have historically used its own website and social media to promote messaging on carbon monoxide safety, Whilst this project still utilises these platforms, Cadent will trial the use of partner-promoted channels (such as National BBQ week and Fun Kids) and external billboards and digital media to understand the increases in customer reach versus the additional investment required.</p> <p>This new found understanding on use of external media platforms will help shape future projects aimed at engaging customers on VCMA-related messaging.</p>
<p>Scale of VCMA Project and SROI Calculations</p>	<p><u>Project Scale</u></p> <p>The project will run between May 2021 and September 2021. Based on the forecasts provided by Cadent's partners and from previously delivered internal projects, we estimate that c.23,000,000 customers will be reached through the entirety of the Summer Campaign.</p> <p>The project will utilise £153,000 of Cadent's company specific VCMA funding and will operate across Cadent's four gas distribution networks.</p> <p><u>SROI Calculations</u></p> <p>Cadent estimates that 23,000,000 customers will be reached with safety messaging on carbon monoxide through the Summer campaign.</p> <p>Cadent has factored in an assumption that 24% of the customers reached through the project will retain and use the information received. (24% based on study SIA partners completed for Cadent on static billboard info retention rates for Cadent RIIO 2 business plan submission).</p> <p><u>Social Return from a Reduction in A&E Visits Linked to CO</u></p> <ul style="list-style-type: none"> • Cadent estimates that 23,000,000 customers will be reached with safety messaging on carbon monoxide through the Summer campaign. • The average household in the UK contains 2.4 people, giving a total project reach of 55,200,000. • Statistics report that there are 4,000 A&E visits per year attributable to CO in England. • The population of England is reported as 55,619,430, with the A&E visits linked to CO representing 0.00719% of the population. • However, a retention rate of 24% must be applied, meaning that 0.00173% of the customers engaged through the project may avoid A&E visits linked to CO • 0.00173% of 55,200,000 customers equates to 4,764 avoided A&E visits across the five years of RIIO-GD2. • An A&E visit costs the NHS £134 on average, giving a total 5-year saving of £638,349.58.

Social Return from a Reduction in Long Term Hospital Visits Linked to CO

- Cadent estimates that 23,000,000 customers will be reached with safety messaging on carbon monoxide through the Summer campaign.
- The average household in the UK contains 2.4 people, giving a total project reach of 55,200,000.
- Statistics report that there are 200 long-term hospital visits each year attributable to CO in England and Wales.
- The population of England and Wales is reported as 58,744,595, with long-term hospital visits linked to CO representing 0.00034% of the population.
- However, a retention rate of 24% must be applied, meaning that 0.00008% of the customers engaged through the project may avoid long-term hospital visits linked to CO.
- 0.00008% of 55,200,000 customers equates to 226 avoided long-term visits across the five years of RIIO-GD2.
- A long-term hospital visit costs the NHS £3,026 on average, giving a total 5 year saving of £682,419.

Social Return from a Reduction in Injuries Caused by CO that lead to Time of Work

- Cadent estimates that 23,000,000 customers will be reached with safety messaging on carbon monoxide through the Summer campaign.
- The average household in the UK contains 2.4 people, giving a total project reach of 55,200,000.
- Statistics report that there are 200 long-term hospital visits each year attributable to CO in England and Wales.
- The population of England and Wales is reported as 58,744,595, with long-term hospital visits linked to CO representing 0.00034% of the population. Customers admitted to hospital long-term are likely to take time off work as a result of their injury.
- However, a retention rate of 24% must be applied, meaning that 0.00008% of the customers engaged through the project may avoid long-term hospital visits linked to CO.
- 0.00008% of 55,200,000 customers equates to 225 customers avoiding time off work and long-term visits across the five years of RIIO-GD2.
- The cost of time off work as a result of an injury costs £233.76 per occurrence. This gives a total 5 year saving of £52,717.23.

Social Return from a Reduction in Deaths Linked to CO

	<ul style="list-style-type: none"> • Cadent estimates that 23,000,000 customers will be reached with safety messaging on carbon monoxide through the Summer campaign. • The average household in the UK contains 2.4 people, giving a total project reach of 55,200,000. • Statistics report that there are 30.3 deaths per year in the UK linked to CO. • The population of the UK is 66,040,200, with deaths attributable to CO representing 0.0000459% of the population. • However, a retention rate of 24% must be applied, meaning that 0.0000110% of the customers engaged by the project may avoid deaths linked to CO. • 0.0000110% of 55,200,000 customers equates to 30.4 avoiding a fatality linked to CO across the 5-year period of RIIO-GD2. • The value of preventing a death to UK PLC is £1,897,129. This gives a total five-year value of £57,656,919.52. <p>Total campaign SROI calculations: It's difficult to calculate a precise social return on investment as it is based on the proportion of those who saw the key messages retaining the messages and taking appropriate action. Research from other sectors undertaken by Sia Partners estimates a 'typical' retention level to be 24% as a result of seeing a billboard advertisement. However, whilst this may be a valid benchmark for Cadent's summer campaign, we have calculated our SROI benefit using only a 1% retention rate, which calculates at £2,201,749.18 (£2,509,223.18 as gross benefit value). The true SROI is likely to be somewhere between £2.2m and £60m.</p> <table border="1"> <thead> <tr> <th>Project cost:</th> <th colspan="2">£153,742.00</th> </tr> <tr> <th></th> <th>1% retention rate</th> <th>24% retention rate</th> </tr> </thead> <tbody> <tr> <td>Year 1 gross benefit value</td> <td>£501,844.64</td> <td>£12,044,271.28</td> </tr> <tr> <td>Year 5 gross benefit value</td> <td>£2,509,223.18</td> <td>£60,221,356.39</td> </tr> <tr> <td>1 year SROI (minus project cost)</td> <td>£348,102.64</td> <td>£11,890,529.28</td> </tr> <tr> <td>5 year SROI</td> <td>£2,201,749.18</td> <td>£59,913,872.39</td> </tr> </tbody> </table>	Project cost:	£153,742.00			1% retention rate	24% retention rate	Year 1 gross benefit value	£501,844.64	£12,044,271.28	Year 5 gross benefit value	£2,509,223.18	£60,221,356.39	1 year SROI (minus project cost)	£348,102.64	£11,890,529.28	5 year SROI	£2,201,749.18	£59,913,872.39
Project cost:	£153,742.00																		
	1% retention rate	24% retention rate																	
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5 year SROI	£2,201,749.18	£59,913,872.39																	
VCMA Project Start and End Date	May 2021 – September 2021																		
Geographical Area	All Cadent networks																		
Remaining Amount in the Allowance at Time of Registration																			

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: Customer Strategy Team PEA Peer Review	
Date Immediate Team Peer Review Completed: 22/09/2021	Review Completed By: Edward Allard
Stage 2: Customer Strategy Team Management Review	
Date Management Review Completed: October 2021	Review Completed By: Phil Burrows
Step 3: Director of Customer Strategy Sign-Off: Mark Belmega	
Director of Customer Strategy Sign-Off Date: 27 th Jan 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: Feb 22	
Date that Notification Email Sent to Ofgem: Feb 22	