

Vulnerability & Carbon Monoxide Allowance (VCMA)

Project Eligibility Assessment (PEA)
McCann Worldgroup Carbon Monoxide
Market Research Study 1

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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) 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;	Not Applicable
b) The household cannot afford to service, repair or replace the unsafe pipework or essential gas appliance; and;	Not Applicable
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.	Not Applicable
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;	Not Applicable
b) Have the potential to benefit consumers on the participating networks; and	Not Applicable
c) Involve two, or more, gas distribution companies.	Not Applicable

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

Information Required	Description
Project Title	McCann Worldgroup Carbon Monoxide Market Research Study 1
Funding GDN(s)	Cadent - The project benefits customers across all four of Cadent's networks.
Role of GDN(s) *For Collaborative VCMA Projects only	Not applicable - company specific project
Date of PEA Submission	May 2022
VCMA Project Contact Name, email and Number	Ed Allard Customer Vulnerability Specialist E: ed.allard@cadentgas.com
Total Cost (£k)	Total Costs = £59,625.42 Market Research Costs = £39,730 Carbon Monoxide Alarm Costs = £13,782.56 Postage Costs = £5772.80 Printing Costs = £340.06
Total VCMA Funding Required (£k)	£59,625.42
Problem(s)	<u>The Danger Carbon Monoxide Poses to Society</u> Carbon monoxide still presents a serious health risk to both gas and non-gas customers across the UK. Department of Health data estimates that 14,000 people are admitted to accident and emergency each year in England due to CO poisoning.

¹https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260211/Carbon_Monoxide_Letter_2013_FinalforPub.pdf

Further statistics report that ²200 people per year in England and Wales are admitted to hospital for a long-term visit and experience time off work due to carbon monoxide poisoning.

Finally, industry statistics report that ³30.3 UK deaths are caused by carbon monoxide poisoning each year in the most severe cases.

Existing Customer Knowledge on Carbon Monoxide

Stakeholder engagement conducted as part of Cadent's RIIO-GD2 business plans formation found that general awareness on the danger of carbon monoxide is high. However, further engagement found that many customers, both those that are in vulnerable situations and those from other demographics had knowledge gaps beyond simply knowing that carbon monoxide is dangerous. Examples included a lack of understanding on the sources of carbon monoxide, the signs, symptoms and dangers and the actions to take in the event of suspected CO incident.

It was clear from Cadent's stakeholder engagement activities that customers had many knowledge gaps and misconceptions on carbon monoxide. However, it was unclear in what demographics these knowledge gaps and misconceptions existed.

It is important for Cadent to further understand what customer demographics possess the biggest knowledge gaps and misconceptions on carbon monoxide, as they are likely to be most at risk. Cadent can then tailor its future VCMA-funded carbon monoxide activities to ensure that the most at-risk customers are reached; resulting in effective spend of the allowance.

Carbon Monoxide Ownership and Gas Appliance Servicing

The installation of an audible CO alarm 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. Reports suggest that between 60%-70% of homes across Cadent's four networks do not have an audible CO alarm installed.

The Covid-19 pandemic has led to a lot of UK families experiencing increased financial hardship. Decreases in household income have meant that some families can no longer afford necessary gas appliance servicing and repairs. 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

²https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260211/Carbon_Monoxide_Letter_2013_FinalforPub.pdf

³ <http://www.co-gassafety.co.uk/wp-content/uploads/2019/01/Statistics-sheet-presspack-Jan-2019-18.01.19.pdf>

	<p>greatly increases the risk of exposure to the dangers of CO.</p>
<p>Scope and Objectives</p>	<p>Cadent is working in partnership with global advertising agency McCann Worldgroup to deliver a market research project that focusses on customer's attitudes and understanding on carbon monoxide.</p> <p><u>Project Objectives</u></p> <p>The project has the following objectives, the achievement of which will determine success.</p> <ol style="list-style-type: none"> 1. The project will provide Cadent with a rich understanding of those most vulnerable to CO poisoning. In particular, the project aims to answer the following questions for customers most vulnerable to CO poisoning: <ol style="list-style-type: none"> a) What levels of awareness do the most at-risk customers possess; b) What are the customer's attitudes and perceptions towards CO; c) What drives these customers to take positive action? 2. The in-depth understanding of those most vulnerable to CO poisoning will be used to shape a campaign strategy which will provoke customers to act. 3. The increased levels of understanding of those most vulnerable to CO will increase the effectiveness of CO VCMA-funded projects, resulting in greater levels of social return on investment. 4. As well as increasing the potential benefit of future VCMA-funded carbon monoxide initiatives, this project will support gas consumers by improving their awareness on the dangers of CO and reducing their risk of being harmed by CO. 5. Finally, customers that request further information will be offered the opportunity to contact National Energy Action for free advice on home energy efficiency and income maximisation. <p><u>Scope of Project</u></p> <ol style="list-style-type: none"> 1. In total, the market research project aims to survey upwards of 3,000 customers across the country. This will ensure that the outputs of the market research are robust and nationally representative. 2. The online survey will offer customers the chance to request a free carbon monoxide detector. The survey was structured in such a way to ensure

	<p>that a certain percentage of higher income respondents were screened out at the beginning of the process. This helped ensure that customers requesting a free CO alarm were less likely to be able to purchase one through their own means.</p> <p>We forecasted that approximately 50% of all respondents may request a free CO alarm, equating to approximately 1500 alarms distributed through the project. Actual data captured upon completion of the project demonstrated that Cadent has issued 1,788 alarms - 288 more than initially forecasted.</p> <p>3. The scope and potential benefit of the market research has the potential to extend beyond just this project; and will shape future Cadent carbon monoxide activities and strategy. The market research will help Cadent understand:</p> <ul style="list-style-type: none"> a) What customer groups are most vulnerable to carbon monoxide poisoning; b) What factors make this group most at risk, e.g. lack of understanding on the symptoms, belief that harm will never occur to them, low levels of current alarm ownership etc. <p>The answering of these questions will help Cadent increase the effectiveness of its spend of VCMA funding on future carbon monoxide projects.</p>
<p>Why the Project is Being Funded Through the VCMA</p>	<p>We believe that this project meets all of the required company specific VCMA project eligibility criteria.</p> <ul style="list-style-type: none"> a) Has a positive, or forecasted positive SROI, including for the gas consumers funding the VCMA project; <p>We believe that this project has the potential to both deliver immediate social return and increase the social benefit of future carbon monoxide projects. Customers requesting further information that are reached through this project will receive a free carbon monoxide alarm, CO educational materials, as well as an option to receive further support on home energy efficiency/income maximisation from NEA.</p> <p>We forecasted that 1500 customers will receive a CO alarm and education. Actual data collated upon completion of the project evidenced that alarms and educational materials were distributed to 1,788 customers. Further information on SROI calculations can be found in the relevant section below.</p> <ul style="list-style-type: none"> 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; <p>This project will both provide awareness on the dangers of CO and reduce the risk of customers being harmed by CO.</p> <p>Customers reached through the project will receive advice on spotting the signs and symptoms of CO, as well as information on the steps to take when they suspect CO. Additionally, customers will also have the choice to request a free carbon monoxide alarm.</p> <p>Finally, customers that opt to receive further information (we forecasted 1,500, 1,788 actually issued) will be offered the opportunity to contact NEA for free advice on home energy efficiency/income maximisation.</p> <ul style="list-style-type: none"> c) Have defined outcomes and the associated actions to achieve these; <p>This project has clearly defined actions 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.</p> <ul style="list-style-type: none"> d) Go beyond activities that are funded through other price control mechanism(s) or required through licence obligations; <p>We believe that this market research project and the support offered to customers on carbon monoxide safety goes beyond activities funded through other price control mechanisms. The nature and type of market research project being conducted by Cadent and McCann is a first for the industry and goes outside of a GDN's BAU activities.</p> <ul style="list-style-type: none"> e) Not be delivered through other external funding sources directly accessed by a GDN, including through other government (national, devolved or local) funding. <p>This project will solely be delivered by Cadent's VCMA funding.</p>
<p>Evidence of Stakeholder/Customer Support</p>	<p>Cadent's RIIO-GD2 business plan ⁴formations found that our customers prioritise safety above all other considerations. In particular, our customers strongly highlighted the importance of safeguarding the most vulnerable in society.</p>

⁴ https://cadentgas.com/nggdwsdev/media/Downloads/business-plan/APP_CAD_07-03-10-CO-Awareness.pdf

Research from Energy UK's 'CO Be Alarmed!' campaign found that CO alarm ownership is relatively low versus customer's perceived levels of awareness. The research found that one in three Britons (over 17 million people) are at risk of not identifying carbon monoxide through not owning an alarm. However, nine in ten Britons stated that they are aware of the dangers posed by CO. This project looks to help Cadent understand both customer's attitudes towards not owning a CO alarm and customer's misconceptions towards the dangers of carbon monoxide.

Data from surveys conducted by Cadent throughout RIIO-GD1 suggested that customer knowledge on CO is much lower. Cadent CO survey data from 5010 respondents rated their knowledge as 5.07/10 on average.

Cadent's network is home to many of the communities with the highest carbon monoxide risk across Great Britain. Four of the top five UK cities in terms of lack of carbon monoxide alarm ownership are situated on Cadent's network - Liverpool *(47%), Norwich *(44%), Manchester *(42%) and Nottingham *(39%).

Additionally, Cadent gathered statistics on the number of incidents relating to UK deaths from unintentional carbon monoxide poisoning between 01.09.1995 to 31.08.2018. Staggeringly, the top three areas in terms of the highest number of deaths were all located in Cadent's networks - Greater London (60 deaths), South Yorkshire (32 deaths) and Derbyshire (27 deaths).

Finally, as part of the RIIO-GD2 business plan formations, Cadent requested feedback from its employees, asking them to select an area of focus from a wide-ranging list that Cadent should prioritise in the new price control. Our employees highlighted the importance of CO awareness, ranking this as the fifth-highest priority out of a wide-ranging list. (4.43 out of 5). Our employees come from a wide range of communities and demographics from across the country, and it is clear that CO safety is a priority for all.

Dr Matt Higgs, Senior Research Director at McCann Worldgroup shared the following feedback on the project:

"We [McCann] were really excited by the opportunity of working with Cadent on a research project that will ultimately help save lives. Since the kick-off meeting the team have engaged with the topic of CO, which has become part of our discussions with family and friends, outside of the project. Being able to give free CO alarms away as part of the survey was something that we are really proud of, having an immediate impact on helping members of the public. We are looking forward to being able to continue working with the Cadent team to devise future campaigns that help reduce the threat of CO poisoning amongst those most vulnerable in society"

	*NB: Percentage of people saying they did not have a CO alarm
Information Required	Description
Outcomes, Associated Actions and Success Criteria	<p><u>Project Details</u></p> <p>This VCMA project centres on Cadent working with global advertising agency group McCann Worldgroup to design, conduct and analyse a market research project.</p> <p>The market research will give Cadent a rich understanding on which group(s) of its 11,000,000 customers are most vulnerable to carbon monoxide. In particular the research study will give Cadent information on:</p> <ul style="list-style-type: none"> • The level of CO alarm ownership amongst its customers and its customers rationale for not owning an alarm. • Its customer's awareness on the dangers of CO and the perceived threat to their health; • Its customer's levels of understanding on the key symptoms of CO; and; • Its customer's level and frequency of use of their gas appliances. <p>The project will also offer customers (particularly those on lesser household incomes) to request free carbon monoxide education materials, a free carbon monoxide alarm and further expert support on home energy efficiency/income maximisation.</p> <p><u>Expected Project Outcomes</u></p> <p>The following positive outcomes are expected from delivering the project:</p> <ul style="list-style-type: none"> • Cadent's understanding on which of its customer groups are most vulnerable to the dangers of CO is increased. • Cadent's understanding on the specifics of what makes particular customer groups more vulnerable to CO is increased (e.g. lack of alarm ownership, higher proportion of customers with misconceptions on the dangers of CO). • An important outcome or product of this project will be an increase in effectiveness of future CO initiatives. This increased effectiveness will be achieved through Cadent applying the learning gained from this project. • As well as creating the potential to support more customers on future projects, the research study

also stands to immediately benefit customers through the issuing of 1788 CO alarms and educating 1788 customers on the signs, symptoms and dangers of CO (1500 forecasted prior to the commencement of the project).

- Finally, the project offers customers the opportunity to access expert advice on improving their home's energy efficiency and household income.

Associated Actions

Cadent and McCann will deliver the below actions in order to achieve the project outcomes:

- McCann will work with the Cadent-provided historic carbon monoxide reports data to devise a research strategy. This will ensure that the most appropriate method(s) are selected to employ and develop the sampling strategy required to meet the research objectives.
- McCann will conduct the market research exercise to understand individuals' awareness of, and perceptions, attitudes/ behaviours towards CO, and how this differs by audience type (i.e. age, class, ethnicity etc.) and location in the UK.
- McCann and Cadent will work together to analyse and identify deliverables from the market research project. This will build a comprehensive picture of how people from across the country from different backgrounds perceive CO, and how best to target and help those at most risk to reduce the threat of CO poisoning.
- The deliverables will then be used on future VCMA-funded carbon monoxide projects to ensure that Cadent effectively spends its allowances to target the most at-risk customers.
- Cadent will dispatch carbon monoxide alarms and educational materials to customers that have requested further information when completing the survey.
- Cadent will include a NEA referral mechanism within the materials sent to customers. This will allow households to request further support from expert partners.

What will Success Look Like?

Cadent will measure the success of the project through achieving of the following:

	<ul style="list-style-type: none"> • The research project provides reliable and robust findings that inform Cadent on which of its customer groups are most vulnerable to CO. • The project gives Cadent an improved understanding on what factors (e.g. lack of alarm ownership, misconceptions on the signs of CO etc.) make a customer group more vulnerable to CO. • The success of this project will continue to be evaluated throughout RIIO-GD2 as future CO initiatives are launched. The learning gained from the market research will shape future projects to ensure that the most vulnerable customers are supported by Cadent's activities. • Approximately 1788 customers received a free carbon monoxide alarm and educational materials, helping them to identify the signs and symptoms of CO. • Approximately 179 customers will receive further support from NEA through home energy efficiency and income maximisation services. • The project will produce a positive social return on investment.
<p>Project Partners and Third Parties Involved</p>	<p>McCann Worldgroup and National Energy Action</p>
<p>Potential for New Learning</p>	<p>One of the most valuable outputs from this project is the potential for new learning it offers Cadent. In particular, we feel that the project will give Cadent:</p> <ul style="list-style-type: none"> • An increased understanding on which of its customer groups (in terms of age, class, ethnicity etc.) are most vulnerable to CO. • An improved awareness on what factors have led to the customer group(s) being identified as most vulnerable. These factors include levels of CO alarm ownership, levels of misconceptions and awareness on the dangers/signs of CO, frequency of gas appliance usage and frequency of gas appliance servicing. • A clearer strategy on how best to reach and engage the customer group(s) identified as most vulnerable by the research. This will help make future campaigns more effective. • An increased understanding on the levels of social return on investment that can be realised by research orientated projects as opposed to delivery-based projects.

Scale of VCMA Project and SROI Calculations

Scale of the Project

The project will commence in late May 2021 and will be delivered over a period of 12 weeks, with the final analysis and deliverables being shared in September 2021.

The market research will survey over 3,000 people. This will give a nationally representative and robust picture of customer's awareness, attitudes and perceptions towards carbon monoxide.

We forecasted that approximately 1,500 customers would request further information, receiving a free carbon monoxide alarm and educational materials. This would immediately protect 1,500 households (an average of 3,600 people) against the dangers of carbon monoxide - the majority of which will have lower levels of household income. Actual data captured as part of the project's evaluations demonstrated that 1,788 customers received an alarm and were provided with CO education (4,291.1 individuals applying the 2.4 average household size multiplier).

The final analysis and deliverables will be shared in September 2021 and will shape a subsequent campaign aimed at those identified as most vulnerable by the research.

SROI Calculations

Forecasted number of alarms issued = 1,500
 Forecasted number of customers educated = 1,500
 Forecasted number of customers that receive further support from NEA = 150

Actual number of alarms issued = 1788
 Actual number of customers educated = 1788

Total 5-year gross present value created = £117,135.75
 Total Investment = £59,625.42
 Total 5-year social return on investment = £57,510.33
 Total 1-year social return on investment = -£36,198.27

Analysis conducted by SIA Partners that contributed towards Cadent's RIIO-2 business plans submission evaluated the social return on investment generated by the issuing of carbon monoxide alarms and education.

The Issuing of Carbon Monoxide Alarms

A 5-year gross present value of £19,506.48 has been created through the issuing of 1788 carbon monoxide alarms.

The following assumptions have been made as part of the below calculations:

- Each alarm that is provided will be installed by the customer in their home. It is assumed that all

	<p>of the people that this initiative reaches take action.</p> <ul style="list-style-type: none"> • The average household size in the UK is ⁵2.4 people. <p><u>The Avoidance of A&E Visits due to CO Poisoning</u></p> <ul style="list-style-type: none"> • Approximately 1,788 households received a carbon monoxide alarm through this project. • The average household in the UK contains 2.4 people, giving a total project reach of 4,291 people. • Statistics report that there are ⁶4,000 A&E visits per year attributable to CO in England. • The population of England is reported as ⁷55,619,430, with the A&E visits linked to CO representing 0.00719% of the population. • 0.00719% of 4,291 customers equates to 1.543 avoided A&E visits across the five years of RIIO-GD2. • An A&E visit costs the NHS ⁸£134 on average, giving a total 5-year saving of £206.77 <p><u>Social Return from a Reduction in Long Term Hospital Visits Linked to CO</u></p> <ul style="list-style-type: none"> • 1,788 households received a carbon monoxide alarm through this project. • The average household in the UK contains 2.4 people, giving a total project reach of 4,291 people. • Statistics report that there are ⁹200 long-term hospital visits each year attributable to CO in England and Wales. • The population of England and Wales is reported as ¹⁰58,744,595, with long-term hospital visits linked to CO representing 0.00034% of the population. • 0.00034% of 4,291 customers equates to 0.0730 avoided long-term visits across the five years of RIIO-GD2.
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⁵ <https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/families/bulletins/familiesandhouseholds/2016>

⁶ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260211/Carbon_Monoxide_Letter_2013_FinalforPub.pdf

⁷ [https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland_\(2017_figure\)](https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland_(2017_figure))

⁸ <https://www.pssru.ac.uk/pub/uc/uc2018/services.pdf>

⁹ https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/260211/Carbon_Monoxide_Letter_2013_FinalforPub.pdf

¹⁰ [https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland_\(2017_figure\)](https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwalesscotlandandnorthernireland_(2017_figure))

- A long-term hospital visit costs the NHS ¹¹£3,026 on average, giving a total 5 year saving of £221.04.

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

- 1,788 households received a carbon monoxide alarm through this project.
- The average household in the UK contains 2.4 people, giving a total project reach of 4,291 people.
- 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.
- 0.00034% of 4,291 customers equates to 0.0730 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 £17.08.

Social Return from a Reduction in Deaths Linked to CO

- 1,788 households received a carbon monoxide alarm through this project.
- The average household in the UK contains 2.4 people, giving a total project reach of 4,291 people.
- Statistics report that there are ¹²30.3 deaths per year in the UK linked to CO.
- The population of the UK is ¹³66,040,200, with deaths attributable to CO representing 0.0000459% of the population.
- 0.0000459% of 4,291 customers equates to 0.0098 avoided fatalities linked to CO across the 5-year period of RIIO-GD2.
- The value of preventing a death to UK PLC is ¹⁴£1,897,129. This gives a total five-year value of £18,675.83.

¹¹ <https://www.pssru.ac.uk/pub/uc/uc2018/services.pdf>

¹² <http://www.co-gassafety.co.uk/wp-content/uploads/2019/01/Statistics-sheet-presspack-Jan-2019-18.01.19.pdf>

¹³ <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates> (2017 figure)

¹⁴ <https://www.gov.uk/government/statistical-data-sets/ras60-average-value-of-preventing-road-accidents>

Social Return from Avoided Ambulance Calls

- 1,788 households will receive a carbon monoxide alarm through this project.
- The average household in the UK contains 2.4 people, giving a total project reach of 4,291 people.
- Sia Partners worked on an assumption that *100% of patients who are taken to A&E due to CO poisoning are transported by ambulance.
- Statistics report that there are 4,000 A&E visits per year attributable to CO in England.
- The population of England is reported as ¹⁵55,619,430, with the A&E visits linked to CO representing 0.00719% of the population.
- 0.00719% of 4,291 customers equates to 1.543 avoided A&E visits across the five years of RIIO-GD2.
- The average cost of an ambulance call is ¹⁶£250, giving a total 5-year saving of £385.76.

The Issuing of Carbon Monoxide Education

A 5-year gross present value of £11,703.90 has been created through offering carbon monoxide education to 1,788 customers.

Sia Partner's also evaluated the levels of social return that can be expected from educating customers on the signs, symptoms and dangers of carbon monoxide.

Each customer that requests a CO alarm will also receive some supporting educational materials on carbon monoxide.

The analysis found that social return could be identified from the same sources and calculations as CO alarms (avoided A&E visits, avoided long-term hospital visits, avoided time off work due to injury, avoided CO-related deaths and avoided ambulance call).

However, a retention rate must be applied, as it is not reasonable to expect all customers to read and retain the information contained on the Cadent CO-educational materials.

A retention rate of 60% has been applied to this project, meaning that 6 out of 10 customers that receive Cadent's CO-educational materials will read and retain the information.

¹⁵ <https://www.ons.gov.uk/peoplepopulationandcommunity/populationandmigration/populationestimates/datasets/populationestimatesforukenglandandwales/scotlandandnorthernireland> (2017 figure)

¹⁶ <https://www.pssru.ac.uk/pub/uc/uc2018/services.pdf>

	<p>The below social return is forecast based on a 60% retention rate:</p> <p><u>Social Return from the Avoidance of A&E Visits due to CO Poisoning</u></p> <ul style="list-style-type: none"> • Forecasted 5-year social return = £124.06 <p><u>Social Return from a Reduction in Long Term Hospital Visits Linked to CO</u></p> <ul style="list-style-type: none"> • Forecasted 5-year social return = £132.63 <p><u>Social Return from a Reduction in Injuries Caused by CO that Lead to Time of Work</u></p> <ul style="list-style-type: none"> • Forecasted 5-year social return = £10.25 <p><u>Social Return from a Reduction in Deaths Linked to CO</u></p> <ul style="list-style-type: none"> • Forecasted 5-year social return = £11,205.50 <p><u>Social Return from Avoided Ambulance Calls</u></p> <ul style="list-style-type: none"> • Forecasted 5-year social return = £231.46 <p><u>Social Return from Home Energy Efficiency/Income Maximisation Support</u></p> <ul style="list-style-type: none"> • Cadent is currently working in partnership with NEA to deliver home energy efficiency and income maximisation services to customers initially referred from Cadent's BAU activities. • The project has been live for 7-months and has funded in excess of 360 cases. • A total of £146,892.15 gross present value has been generated across the 360 cases, equating to an average of £480.03 per case. • Cadent forecasts that 179 customers (10%) will be supported through the NEA referral programme on this project, creating a total gross present value of £85,925.37. <p>*NB: Without sufficient CO awareness, many of the initial symptoms (headache and dizziness, weakness, loss of memory) of CO poisoning would not typically inhibit a response to visit the Emergency Room. However, once the symptoms become more severe (fainting, unconsciousness), it is fair to assume that in the vast majority of cases an ambulance would be called – a potential patient suffering from severe exposure to CO would not be able to transport themselves to the A&E, and their carers would want to bring them to medical attention as soon as possible.</p>
<p>VCMA Project Start and End Date</p>	<p>Project Commencement Date = 24/05/2021 Project Completion Date = 30/09/2021</p>
<p>Geographical Area</p>	<p>The McCann Worldgroup market research project will engage customers across all four of Cadent's gas distribution networks.</p>

	Customers across all four of Cadent's networks will receive a benefit from the project. This benefit will come in the form of CO alarms and education on this initiative, as well as an increased level of effectiveness on future projects that implement the learning from the research.
Remaining Amount in the Allowance at Time of Registration	Remaining funding to be confirmed upon project registration.



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

<p>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.</p>	
<p>Stage 1: Sustainability & Social Purpose Team PEA Peer Review</p>	
<p>Date Immediate Team Peer Review Completed: 30/03/2022</p>	<p>Review Completed By: Gemma Norton</p>
<p>Stage 2: Sustainability & Social Purpose Team Management Review</p>	
<p>Date Management Review Completed: Philip Burrows Head of Customer Vulnerability Delivery</p>	<p>Review Completed By: 30/03/2022</p>
<p>Step 3: Director of Sustainability & Social Purpose Sign-Off: Mark Belmega</p>	
<p>Director of Sustainability & Social Purpose Sign-Off Date: 30/03/2022</p>	
<p>Step 4: Upload PEA Document to the Website & Notification Email Sent to Ofgem (vcma@ofgem.gov.uk)</p>	
<p>Date that PEA Document Uploaded to the Website: March 2022</p>	
<p>Date that Notification Email Sent to Ofgem: March 2022</p>	