

# Vulnerability & Carbon Monoxide Allowance (VCMA)

## Project Eligibility Assessment (PEA) Marches Energy Agency Home Energy Assessment Tool (HEAT) Application

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**Updated February 2024**

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

<b>Section 1 - Eligibility criteria for company specific projects (other than condemned essential gas appliance repair and replacement)</b>	
In order to qualify as a VCMA project, a project must:	
<b>VCMA Eligibility Criteria</b>	<b>Criteria Satisfied (Yes/No)</b>
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"> <li>i. Provide support to consumers in vulnerable situations, and relate to energy safeguarding, or</li> <li>ii. Provide awareness on the dangers of CO, or</li> <li>iii. Reduce the risk of harm caused by CO;</li> </ul>	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
<b>Section 2 - Eligibility criteria for company specific essential gas appliance servicing, repair and replacement projects</b>	
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;	N/A
b) The household cannot afford to service, repair or replace the unsafe pipework or essential gas appliance; and;	N/A
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.	N/A
<b>Section 3 - Eligibility criteria for collaborative VCMA projects</b>	
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	Marches Energy Agency Home Energy Assessment Tool (HEAT) Application
Funding GDN(s)	Cadent - all four gas Cadent gas distribution networks
Role of GDN(s) *For Collaborative VCMA Projects only	Not applicable - Cadent company-specific project
Date of PEA Submission	February 2023
VCMA Project Contact Name, email and Number	Name: Phil Burrows Title: Head of Customer Vulnerability Social Programme Delivery Email: Phil.m.burrows@cadentgas.com Phone: 07773 545451
Total Cost (£k)	App development costs = £81,460  <b>Updated February 2024</b>  App Development costs = £98,367* *£16,907 additional funding given Feb 2024 Management costs @ 4% = £3,935  Total App Development Costs = £102,301.68  **Cadent engineer resource costs of £38,615.04 were included in the original PEA published in March 23. These have now been removed as they are included in the collaborative SBTM PEA.
Total VCMA Funding Required (£k)	£120,075.04  <b>Updated February 2024</b>  <b>£102,301.68</b> ** overall investment has reduced from previous publication.
Problem(s)	<p>The Energy Agency Home Energy Assessment Tool (HEAT) Application project features two main deliverables.</p> <p>Utilising Cadent's funding, Marches Energy Agency (MEA) will develop a mobile application called the Home Energy Assessment Tool (HEAT). HEAT will be web based and allow customer facing organisations to provide energy efficiency advice to vulnerable households in a clear and easy to interpret manner. HEAT will users to create two "Energy MOT" reports in under an hour.</p> <p><u>Fuel Poverty</u></p> <p>Fuel poverty continues to pose a serious risk to the health of millions of households across England. The latest government fuel poverty statistics report an increase in fuel poverty from the previous level of 13.1% up to 13.4% in 2022. This equates to an estimated 3.5mil people living in fuel poverty on Cadent's network alone (applying the average UK household size multiplier of 2.4).</p> <p>A household's risk of experiencing fuel poverty is influenced by three factors:</p>

- The price of fuel,
- The level of disposable household income, and,
- The property's energy efficiency/the customer's energy efficiency behaviours

Rises in the energy price cap have led to increases in households' required fuel costs (the cost of the fuel required to heat a home to an adequate temperature). Additionally, rises in inflation and the cost of living has meant that many households have left disposable income for space heating after paying other essentials such as housing, groceries and council tax.

The Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project aims to support households living in fuel poverty by improving customers' energy efficiency behaviours.

### Customer Sentiment

Customers have experienced a number of changes to the national landscape in 2022 and 2023 relating to the price of fuel and increases in the cost of living.

Rises in inflation and the energy price cap have impacted all households, and although the government's energy price guarantee has provided households with important support, many customers still feel powerless and alienated by the crisis.

As such, thousands of households may not be open to the conventional energy efficiency advice offered through digital media (e.g. government and company campaigns), due to a distrust and a belief that there is no way of mitigating the impact of high bills.

The Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project aims to overcome this sentiment and support customers by presenting the benefits of energy efficiency advice in an engaging and easy to interpret manner. Customers will receive tailored advice, represented in a monetary value (e.g. savings of £X per day, week, month, year).

### Demand on Advice Resource

The cost of living crisis and the rise in energy prices have led to a dramatic increase in the number of households seeking support from energy advice providers. Many of Cadent's stakeholders report challenges in meeting the significant demand for their energy advice services. For instance, one national charity recently reported that two customer calls bounce for every answered call into their public facing helpline. Other charities have restricted the opening hours of their advice services, in order to allow their staff to catch-up and compete after call casework.

The Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project aims to support organisations facing demand challenges in a number of ways:

- Firstly, the format of an easy to use web based app will increase capacity in organisations attempting to deliver support to fuel poor households. The HEAT app simplifies the process of issuing accurate energy efficiency advice, allowing a wider range of staff with less expertise to deliver support to fuel poor homes.

	<ul style="list-style-type: none"> <li>Secondly, the HEAT app will shorten the duration of an average home energy advice visit. Without technology like HEAT, home energy advice visits can take a number of hours, due to the need for onsite manual calculations and the conveying of complex information back to the customer. MEA and Cadent have forecasted that the average HEAT home visit will take less than an hour to complete.</li> </ul>
<p><b>Scope and Objectives</b></p>	<p>The Energy Agency Home Energy Assessment Tool (HEAT) Application project features two main deliverables.</p> <p>Utilising Cadent's funding, Marches Energy Agency (MEA) will develop a mobile application called the Home Energy Assessment Tool (HEAT). HEAT will be web based and allow customer facing organisations to provide energy efficiency advice to vulnerable households in a clear and easy to interpret manner. HEAT will allow users to create two "Energy MOT" reports in under an hour.</p> <p>The first "Energy MOT" report will calculate a customer's current energy usage and translate it into a monetary, easy to interpret format (e.g. the cost per day, week, month, and year). The HEAT user will calculate the customer's current usage by examining the property's appliances (e.g. 8kW shower) and the frequency of use during a week (e.g. 20 minutes per/day, 7 days per/week). The examining of the properties main gas and electric appliances will create a report for the whole home.</p> <p>The HEAT application will then create a second "Energy MOT" that shows expected savings based on energy efficiency behaviour changes. Uniquely, the application will compare these recommendations based on the customer's current usage in the first "Energy MOT" report - tailoring the advice to the individual property. Examples of the HEAT application's recommendations contained within the second "Energy MOT" may include reducing the number of minutes per shower or turning appliances off standby.</p> <p>Analysis by MEA suggests that use of behavioural changes recommended by HEAT could save households 10% per/year on their energy bills - equating to £210 - £250.</p> <p>The second deliverable of the Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project, will be the use of the application in Cadent Services Beyond the Meter engineer visits.</p> <p>Cadent has upskilled a small number of emergency engineers to be able to perform additional work types in vulnerable homes. Examples of the additional work types able to be completed by upskilled engineers include:</p> <ul style="list-style-type: none"> <li>• CMDDA1 carbon monoxide investigations;</li> <li>• Gas appliance safety checks;</li> <li>• Internal pipework repairs and replacements;</li> <li>• The installation of gas cookers;</li> </ul>

	<p>Alongside the practical gas appliance work, Cadent's Services Beyond the Meter engineers have been trained to deliver in-home energy efficiency advice. This training has been received from expert organisations such as National Energy Action. Cadent aims for its Services Beyond the Meter engineers to use the HEAT application when working in the homes of customers in vulnerable situations. Joining Cadent's Services Beyond the Meter project and the HEAT application will ensure that the benefit of the energy efficiency advice is targeted at "in need" customers - as households would have already satisfied the Vulnerability and Carbon Monoxide Allowance (VCMA) criteria for repairs, replacements, and servicing of essential gas appliances</p>
	<p><u>Project Objectives</u></p> <p>The Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project has a number of objectives including:</p> <ul style="list-style-type: none"> <li>• The project will produce a reliable, user-friendly, and innovative web application that conveys tailored energy efficiency advice to vulnerable households.</li> <li>• The HEAT application will be used by Cadent Services Beyond the Meter engineers, MEA home energy advisors, and selected partners to support a large number of households at risk of experiencing fuel poverty.</li> <li>• With regards to Services Beyond the Meter engineer visits, Cadent aims to complete approximately 720 home visits using HEAT in 2023-2024.</li> <li>• Each home visit that utilises the HEAT app will identify annual savings to the customer of between £210 - £250 (approximately 10% of their energy bill).</li> </ul> <p>As well as achieving the above objectives, the project also aims to achieve the following:</p> <ul style="list-style-type: none"> <li>• Customers in receipt of a HEAT home energy visit will report an improved awareness of energy efficiency techniques.</li> </ul> <p>Customers will also report reductions in stress due to financial worry and improved levels of comfort at home.</p> <p>Updated February 2024</p> <p>To complete the final phases of the project and deliver the app in the most effective way Marches requested a further funding amount of:</p> <p>£16,907</p>



<p><b>Why the Project is Being Funded Through the VCMA</b></p>	<p>Cadent believes this project meets all the Vulnerability and Carbon Monoxide Allowance eligibility criteria:</p> <p><b>A. The project is forecasted to have a positive Social Return on Investment (SROI)</b>          We believe that the project has the deliverables necessary to generate a positive social return on investment. This is based on our understanding of the social value created by energy efficiency advice, as well as the forecasted average energy bill annual saving per customer.</p> <p><b>B. The project will either:</b></p> <ul style="list-style-type: none"> <li>i. <b>Provide support to consumers in vulnerable situations, and relate to energy safeguarding or,</b></li> <li>ii. <b>Provide awareness of the dangers of CO, or</b></li> <li>iii. <b>Reduce the risk of harm caused by CO</b></li> </ul> <p>The project will provide support to vulnerable consumers and relate to energy safeguarding. This will be demonstrated by the nature of the advice offered through the HEAT application, as well as the customer group that stands to benefit from the project.</p> <p><b>C. Project has defined outcomes and associated actions to achieve these:</b>          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.</p> <p><b>D. The project goes beyond the activities funded through the price control mechanisms or required license obligations.</b>          We believe that this project goes outside of activities funded through other price control mechanisms due to:</p> <ul style="list-style-type: none"> <li>a) the types of support being delivered, and,</li> <li>b) the method through which customers are to be engaged (e.g. not through Cadent's BAU activities)</li> </ul> <p><b>E. Not be delivered through other external funding sources directly accessed by a GDN, including through other government (national, devolved, or local) funding.</b>          This project will be solely delivered through Cadent's VCMA funding.</p>
<p><b>Evidence of Stakeholder/Customer Support</b></p>	<p>Cadent continues to seek the views of a wide range of stakeholders to support its strategy for shaping VCMA projects. For instance, Cadent conducted extensive stakeholder engagement to gather the views of organisations on its year one VCMA delivery.</p> <p>Cadent obtained stakeholder feedback on individual projects (e.g., the model of delivering energy advice home visits) and categories of activities (e.g. tackling affordability and fuel poverty).</p>

	<p>With regards to categories of activities, tackling affordability and fuel poverty saw the highest percentages of support for increasing funds, with 61% of stakeholders and 43% of customers supporting an increase in funding when compared to 2021-2022 levels.</p> <p>Concerning individual projects, 80% of customers and 78% of stakeholders supported or somewhat supported the funding of energy advice home visits. One customer (aged 30-39) commented "<i>I think it's important people have someone to turn to in the first instance, for advice, wherever they are</i>".</p> <p>Cadent also conducted "Energy Diaries", a piece of research aimed at gauging the customer's attitudes towards the rises in energy prices, as well as the support offered by organisations such as Cadent. The Energy Diaries demonstrated that customers continue to support the key measures that we identified when developing our RII0-2 plan, with a heightened requirement to support people with the cost-of-living crisis. Additionally, we regularly seek to obtain the feedback of stakeholders such as Citizens Advice and National Energy Action (NEA) in order to understand the needs of customers in vulnerable situations. These regular conversations allow Cadent to gain feedback on the initiatives we are or should be supporting, and also ensure that the projects are in the best interests of our customers. Stakeholders have provided consistent feedback on the need for energy networks to focus their funding on supporting households most impacted by the cost of living crisis.</p> <p>Overall, we believe that the above range of customer and stakeholder feedback demonstrates strong support for funding the Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project</p>
Information Required	Description
<p><b>Outcomes, Associated Actions and Success Criteria</b></p>	<p>The Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project will create a user-friendly and innovative application that:</p> <ul style="list-style-type: none"> <li>• Benefits customer facing organisations through enabling a wider range of staff to deliver energy efficiency advice in less time (less than an hour per home visit using HEAT).</li> <li>• Supports customers by providing simplified, tailored energy advice with a monetary benefit.</li> </ul> <p><u>Project Outcomes</u></p> <p>Utilising Cadent's VCMA funding, Marches Energy Agency and Cadent aim to deliver the following outcomes:</p> <ul style="list-style-type: none"> <li>• Marches Energy Agency produce a reliable, user-friendly, and innovative web application that conveys tailored energy efficiency advice to vulnerable households.</li> <li>• Marches Energy Agency provide support and training to Cadent Services Beyond the Meter engineers that enables them to deliver high quality energy advice home visits.</li> </ul>



- Marches Energy Agency and Cadent will share access to the HEAT application with select vulnerable customer facing partners.
- Cadent Services Beyond the Meter engineers will deliver approximately 720 home visits using HEAT in 2023-2024.
- Each home visit that utilises the HEAT app will identify annual savings to the customer of between £210 - £250 (approximately 10% of their energy bill).
- Customers in receipt of a HEAT home energy visit will report an improved awareness of energy efficiency techniques.
- Customers will also report reductions in stress due to financial worry and improved levels of comfort at home.

### Associated Actions

Cadent and Marches Energy Agency will perform the following associated actions in order to achieve the project's outcomes and success criteria:

- Marches Energy Agency will work with a software developer to ensure that the HEAT application accurately reflects a full range of gas and electric appliances, and their associated running costs.
- Marches Energy Agency will work with its staff to stress test and refine the HEAT application before sharing with Cadent and select vulnerable customer facing partners.
- Marches Energy Agency will provide Cadent Services Beyond the Meter engineers with comprehensive training on how to use the HEAT application to produce "Energy MOTs".
- Cadent will ensure effective planning of its Services Beyond the Meter workload and resource to deliver approximately 720 HEAT home energy visits in 2023-2024.

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Further actions were required to achieve the outcome of a usable app including:

Full set up for admin users and super admin users

Extra training sessions & online support

App adjustments based on feedback

### Success Criteria

The project's success will be measured through a variety of metrics including:

- The creation of a fully functioning, user friendly, and innovative HEAT application;
- Measuring the number of Cadent-delivered HEAT

	<p>energy advice home visits;</p> <ul style="list-style-type: none"> <li>• Measuring the expected annual savings per customer as identified by the HEAT application's second "Energy MOT";</li> <li>• Measuring customer's attitudes towards the positive indicator listed in the Project Outcomes section of this document (e.g. customers will report an improved awareness of energy efficiency techniques).</li> </ul>
<p><b>Project Partners and Third Parties Involved</b></p>	<p>Cadent will principally work in partnership with Shropshire based home energy charity - Marches Energy Agency. Cadent and Marches Energy Agency will work with third parties including the application's software developer and selected vulnerable customer facing partners.</p>
<p><b>Potential for New Learning</b></p>	<p>The Marches Energy Agency Home Energy Assessment Tool (HEAT) Application project has the potential to create significant benefit to vulnerable customers across the country. Cadent and Marches Energy Agency have created an innovative and user friendly application that will enable customer facing organisations to scale up their delivery of energy advice</p> <p>Cadent and Marches Energy Agency will first pilot the use of HEAT through internal resource - i.e. Cadent Services Beyond the Meter activities and Marches Energy Agency home visits.</p> <p>This pilot will offer the parties significant learning on:</p> <ul style="list-style-type: none"> <li>• Customers' current energy efficiency behaviours, and their ability to make savings through simple behavioural changes,</li> <li>• The functioning of the HEAT application and what changes may be required to further improve the user interface and breadth of electric and gas appliances included in the application,</li> <li>• The savings that can be expected through using HEAT as a method of assessing a household's energy efficiency.</li> </ul> <p>These learning points will be important, as Cadent and Marches Energy Agency aim to expand the number of organisations using HEAT outside of their immediate partnership (e.g. local authorities, fire and rescue services, social housing providers etc.).</p>
<p><b>Scale of VCMA Project and SROI Calculations</b></p>	<p><u>Scale of VCMA Project</u></p> <p>Cadent and Marches Energy Agency will deliver a 14-month project between February 2023 and April 2024. The project's deliverables will include the creation of the HEAT application and its subsequent use on 720 Cadent-delivered energy advice home visits.</p> <p><u>SROI Summary</u></p> <p>Investment = £120,075.04  5-year social return on investment = £542,324.96  1-year social return on investment = £12,404.96 (initial spend on the app creation and development in the first year)  5-year gross present value = £662,400.00</p>

	<p>1-year gross present value = £132,480.00</p> <p><b><u>SROI – Summary updated February 24</u></b></p> <p>Investment = £102,301.68                      5-year social return on investment = £542,324.96                      1-year social return on investment = £12,404.96                      5-year gross present value = £662,400.00                      1-year gross present value = £132,480.00</p> <p><b>SROI Ratio = 1:5.3</b></p> <p>Cadent has forecasted to complete 720 HEAT energy advice home visits in 2023-2024.</p> <p>Analysis from Marches Energy Agency predicts an average annual saving per customer of £230.00.</p> <p>Similar to Cadent's RIIO-GD2 business plan SROI evaluation of carbon monoxide education, we have assumed a retention rate of 80% - meaning that a likelihood of 80 out of 100 people would use and understand the information from HEAT on average.</p> <p>80% of 720 households equates to a group of 576 homes that will utilise the benefits of the HEAT application. Each of the 576 homes will achieve an average annual saving of £230.00. This benefit will be repeated over a period of 5-years, equating to a gross present value per household of £1,150.00.</p> <p>576 households achieving this 5-year benefit equates to a total gross present value of £662,400.00.</p>
<p><b>VCMA Project Start and End Date</b></p>	<p>Project Start Date: February 2023                      Project End Date: April 2024</p>
<p><b>Geographical Area</b></p>	<p>The project will benefit customers across all four of Cadent's gas distribution networks</p>
<p><b>Remaining Amount in the Allowance at Time of Registration</b></p>	<p>To be confirmed upon receipt of Director of Sustainability and Social Purpose sign-off.</p>

## 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 and Social Purpose Team PEA Peer Review	
Date Immediate Team Peer Review Completed: 24.03.23	Review Completed By: Sam Graham
Stage 2: Sustainability and Social Purpose Team Management Review	
Date Management Review Completed: 24.03.23	Review Completed By: Phil Burrows
Step 3: Director of Sustainability & Social Purpose Sign-Off: Mark Belmega	
Director of Sustainability and Social Purpose Sign-Off Date: 27.03.23	
Step 4: Upload PEA Document to the Website & Notification Email Sent to Ofgem ( <a href="mailto:vcma@ofgem.gov.uk">vcma@ofgem.gov.uk</a> )	
Date that PEA Document Uploaded to the Website: March 23	
Date that Notification Email Sent to Ofgem: March 23	