

Vulnerability & Carbon Monoxide Allowance (VCMA)

Project Eligibility Assessment (PEA) *Pathways and Protocols in Maternity Care*

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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)
<p>a) Have a positive, or a forecasted positive, Social Return on Investment (SROI) and Net Present Value (NPV) including for the gas consumers funding the VCMA Project (GDNs should use a common SROI model.</p>	Yes
<p>b) Either:</p> <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; 	i, ii and iii.
<p>c) Have defined outcomes and the associated actions to achieve these;</p>	Yes
<p>d) Go beyond activities that are funded through other price control mechanism(s) or required through license obligations; and</p>	Yes
<p>e) Not be delivered through other external funding sources directly accessed by a GDN, including through other government (national, devolved or local) funding.</p>	Yes

Section 2 – Eligibility criteria for company-specific essential gas appliance servicing

To qualify as a VCMA Project, essential gas appliance servicing must meet the following criteria:

<p>a) Either:</p> <ul style="list-style-type: none"> i. A GDN has had to isolate and condemn an essential gas appliance following a supply interruption or as part of its emergency service role; or ii. A GDN or its Project Partner has identified an essential gas appliance which has not been serviced in the last 12 months in the owner-occupied home of a customer in a Vulnerable Situation where an occupier of the property suffers from a permanent or temporary health condition that makes them more vulnerable to health risks associated with cold homes; or iii. A GDN or its Project Partner has identified an essential gas appliance which has not been serviced in the last 12 months in a tenant-occupied home of a customer in a Vulnerable Situation where it is the tenant’s responsibility to maintain the essential gas appliance, where an occupier of the property suffers from a permanent or temporary health condition that makes them more vulnerable to health risks associated with cold homes. 	N/A
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b) The household cannot afford to service the essential gas appliance, which is assessed against criteria consistent with the Energy Company Obligation (ECO4) Guidance: Delivery document 1 (see Appendix 1).	N/A
c) Sufficient funding is not available from other sources (including a social or private landlord, national, devolved, local government funding) to fund the essential gas appliance service.	N/A

Section 3 – Eligibility criteria for Collaborative VCMA Projects	
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	Yes
c) Involve two, or more, gas distribution companies.	Yes

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

Information Required	Description
Project Title	Pathways and Protocols in Maternity Care.
Funding GDN(s)	Cadent company specific project.
New / Updated (indicate as appropriate)	New VCMA Project
Role of GDN(s) *For Collaborative VCMA Projects only	N/A
Date of PEA Submission	July 2024
VCMA Project Contact Name, email and Number	Name: Phil Burrows Title: Head of Customer Vulnerability Social Programme Delivery Email: Phil.m.burrows@cadentgas.com Number: 07773 545451
Total Cost (£k)	Project costs: £64,716.00 Project Management Costs: £2,588.64 Total Costs: £67,304.64
Total VCMA Funding Required (£k)	Total Costs: £67,304.64

<p>Problem(s)</p>	<p>Health and social care organisations need pathways and interventions that enable them to take effective action when a patient or client is identified as at risk of carbon monoxide (CO) poisoning or being exposed to harmful levels of CO.</p> <p>One of the groups which can be most impacted is pregnant women and their unborn child. During pregnancy symptoms of environmental CO exposure can be similar to those of pregnancy, increasing the likelihood of misdiagnosis and can be wrongly attributed to smoking.</p> <p>Experts believe the risk of chronic CO exposure at lower levels in the home could be contributing to unexplained maternal and neonatal mortality and morbidity. These families are more likely to be living in lower quality, private rented accommodation, less aware of the dangers of CO exposure, less empowered to improve their living conditions, and less able to act if a problem is identified.</p> <p>Maternity services need pathways and interventions that enable effective action when a woman and her unborn baby is identified as at potential risk of environmental CO poisoning, or being exposed to harmful levels of CO.</p> <p>Awareness of the dangers of environmental CO poisoning, and how to ensure that those who are exposed are protected, is generally low amongst maternity care staff. There is a lack of information, training and robust pathways and protocols to ensure identification of those potentially being exposed, referral for any treatment required and the prompt protection from future harm, especially without leaving them vulnerable in other ways e.g. from cold and lack of cooking facilities.</p>
<p>Scope and Objectives</p>	<p>University Hospital Coventry and Warwickshire (UHCW) are one of the four sites within the previously completed IPPCO study, funded by all four GDNs and overseen by the team at IPIP. Working together, they have identified potential pathways and interventions which will build on the knowledge and understanding of the required intervention that the e learning package will provide (separate e-learning for health project). Much preparatory work has already been undertaken, without external funding. However, it is now difficult to take this work to the next stage without some additional funding to support implementation and evaluation.</p> <p>The overall aim is to support the development and implementation of a scalable intervention that:</p> <ul style="list-style-type: none"> • Supports the identification of pregnant women and unborn babies at risk from exposure to environmental CO. • Ensures women are offered the treatment, advice and services that protect them from the harm of CO. <p>The suggested pathway and intervention involve the midwifery team at UHCW, West Midlands and Warwickshire Fire and Rescue Services (FRS), Cadent engineers and Services Beyond the Meter team.</p>

	If available, this project will utilise the E-Learning for Health training package.
Why the Project is Being Funded Through the VCMA	<p>This project will benefit some of the most vulnerable groups across the UK by empowering maternity service providers to:</p> <ul style="list-style-type: none"> • Increase the understanding of front-line staff regarding the dangers of CO poisoning. • Enable health care staff to recognise potential sources of harm. • Enable actions and referrals to prevent or remove harm and receive any treatment required. <p>Those professionals will also be able to ensure that pregnant women know about and can access the Priority Services Register (PSR), have an understanding of;</p> <ul style="list-style-type: none"> • The harm caused by environmental CO • Services available to protect themselves and their families, • Understand the actions to take to prevent harm.
Evidence of Stakeholder/Customer Support	<p>The need for this work has been identified through the knowledge gained from work previously undertaken including.</p> <ul style="list-style-type: none"> • IPPCO study (CO in pregnancy research study funded by the UK GDNs). • Representation from Maternity Voices Partnership. • Roundtable event including a wide range of health professionals, GDNs and user voices. • The efficient operation of regulation and legislation: A holistic approach to understanding the effect of Carbon Monoxide on mortality A Report for the CO Research Trust, February 2022 • Understanding and minimising the consequences of environmental CO exposure during pregnancy. A report for the CO Research Trust, September 2022 • Consultation with health and social care organisations including NHS England (NHSE), Office for (OHID), UKHSA, RCGP
Information Required	Description
Outcomes, Associated Actions and Success Criteria	<p>Below is a description of the pathway and interventions which are currently being developed.</p> <p><u>Midwifery</u></p> <ul style="list-style-type: none"> • All key midwifery staff offered training to enable the identification of those at risk. • All pregnant women have a CO exhaled breath test at their booking appointment (usually within a hospital/clinic setting). Those pregnant women who have an exhaled CO level >4ppm asked to consent for referral for a Safe & Well visit by the local FRS. • All pregnant women given written information about CO and encouraged/supported to sign up to the Priority Services Register.

- Any woman who has an exhaled CO level >4ppm at any antenatal appointment, who has previously not been offered or has previously refused a Safe & Well referral, asked to consent for a referral.
- Any woman with high CO levels/symptoms of poisoning to be referred to A&E for further investigation/treatment. A Safe & Well visit can also be offered.
- Any woman with a high CO level/symptoms referred to National Gas Emergency Service.

Fire and Rescue Services

- Safe & Well visit by FRS for all pregnant women accepting the referral.
- Advice given regarding home safety including CO exposure.
- Fitting of CO and smoke alarms when required.
- Removal from harm if required.
- Referral to National Gas Emergency Service and other services as required.

Emergency Gas Safety Service/GDN

- Identification of the source of raised CO.
- Possible provision of temporary heating/cooking facilities
- Where available, working with 'Services Beyond the Meter' team, replace/repair of equipment causing raised CO levels in the home.

The new pathway will be piloted across three sites.

- University Hospital Coventry and Warwickshire (Coventry) with approximately 6,300 maternities per year
- South Warwickshire Foundation Trust (Warwick) with approximately 3,700 maternities per year
- George Elliot Hospital (Nuneaton) with approximately 2,000 maternities per year

All 12,000 women will be offered a CO breath test at their booking appointment and be provided with a leaflet containing information on:

- The PSR and how to register.
- Signs and symptoms of CO poisoning and action to take if CO poisoning is suspected.
- Free benefits calculator tool, provided by the Income and Expenditure Hub.

All women with a CO reading >4ppm will be offered a Safe and well Visit by West Midlands or Warwickshire Fire Service. Any women not taking up the offer will have further opportunities if their CO reading is >4ppm at any other time during their pregnancy. We do not know how great the take up will be, but from previous experience when completing the CO in pregnancy research study at the same hospital, outcomes show that an uptake would be above 70%.

Of that 12,000 women available information suggests that approximately 1,297 will have a raised CO level, with some at least in part being due to smoking. All these women will be offered the Safe and Well visit. Looking at some early data we expect

	<p>about 7% of non-smokers to have a raised CO with about 1.3% having an exhaled breath level of 7ppm or above.</p> <p>For this project this would equate to 610 women having a level >4-6 and 139 women having a level of 7 or above. Giving an estimated total of 2,046 eligible women. If we predict a take up of 70% this will result in 1,432 safe and well visits.</p> <p>This pilot has the potential to demonstrate:</p> <ul style="list-style-type: none"> • The acceptability of the pathways and protocols to the services involved and to pregnant women. • The impact on maternity resources. • The cost of implementation across the NHS. • The impact for pregnant women and their unborn babies including: <ul style="list-style-type: none"> ○ Numbers of raised CO levels due to environmental factors. ○ Numbers and outcomes of Safe & Well visits. ○ Numbers of referrals to National Gas Emergency Service. ○ Where available, working with 'Services Beyond the Meter' team, replace/repair of equipment causing raised CO levels in the home. <p>Whilst preparing to implement the new system, other measurable outcomes will be considered in consultation with stakeholders.</p> <p>Should the new protocols and pathways prove to be impactful and practical to implement, the resources will be developed into a toolkit to support wider application.</p> <p>This information will be shared with local and national stakeholders.</p> <p>During the pilot phase we will work with the key stakeholders to develop and implement a communication strategy. This will include:</p> <ul style="list-style-type: none"> • Speaking at key health/social care events. • Articles in professional journals. • Using social media and podcasts. • Meeting with key agencies, NHS England (NHSE), Office for Health Improvement and Disparities (OHID), UK Health Security Agency (UKHSA), Royal Colleges and professional organisations, to consider if the approach would support better birth outcomes. <p>In England alone, there are approximately 650,00 births each year. The pregnant women and their unborn babies are cared for by teams of midwives based in 137 NHS Trusts.</p>
<p>Project Partners and Third Parties Involved</p>	<p>Improving Performance in Practice West Midlands and Warwickshire Fire Services CO Research Trust NHSE OHID UKHSA Royal College of Midwives</p>

Potential for New Learning	<p>This project will increase the understanding of how those working in the NHS and Social Care can:</p> <ul style="list-style-type: none"> • Support the identification of those who are/have been exposed or potentially exposed to carbon monoxide. • Protect the most impacted and most vulnerable from the effects of CO poisoning. • Help identify and support those living in fuel poverty. • Support the understanding of the scale of the problem. <p>We'll share the learnings from these trials with other NHS trusts with a view of facilitating understanding across the whole UK.</p>
Scale of VCMA Project and SROI Calculations, including NPV	<p>The reach will be divided as per below:</p> <ul style="list-style-type: none"> • 1,432 individuals will receive advice on energy efficiency = £525,646.54 • 1,432 individuals (who have a raised CO level) will have a conversation with a midwife about the source and removing the harm = £12,501.36 • 12,000 individuals will receive information on the PSR, with an assumption that 1,200 will register to the PSR = £172,668.00 <p>Investment cost = £67,304.64</p> <p>5-year gross present value = £711,816.00 1-year gross present value = £142,363.20</p> <p>5-year net present value = £647,100.00 1-year net present value = £77,647.20</p> <p>SROI Ratio: £1:1*</p> <p>(*SROI for Service Beyond the Meter referrals within this Pathways in Pregnancy project, has already been calculated in the Services Beyond the Meter PEA document, so has not been incorporated into the SROI for this project).</p>
VCMA Project Start and End Date	<p>VCMA Project Start Date: August 2024 VCMA Project End Date: August 2025</p> <p><i>Related project - Identifying and Protecting Pregnant women from CO Exposure (IPPCO Study) June 2021 – 2023</i></p> <p><i>Related project -Services Beyond the Meter 2021- ongoing</i></p>
Geographical Area	<p>Development and pilot within the Cadent area with the intention that, post pilot, the findings and supporting materials are made widely available across the four nations.</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: 11/07/2024	Review Completed By: Shelley Snow
Stage 2: Sustainability and Social Purpose Team Management Review	
Date Management Review Completed: 02/08/24	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: 22/08/24	
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: August 24	
Date that Notification Email Sent to Ofgem: August 24	