

Discretionary Reward Scheme 2015-18



Introduction

Everything we do is shaped by our stakeholders' priorities and our values. Engagement strategy and delivery is reviewed by me and my exec team, making sure it's still delivering valuable outcomes for our stakeholders. The initiatives and outcomes in this report are all as a result of stakeholder feedback.

Engagement with community stakeholders at our regional workshops is reviewed by various exec-run steering groups and drives improved business plans as a result. Further scrutiny of our plans, before implementation, is carried out by our expert Critical Friends' Panel-a group that I chair, to demonstrate the value we place on stakeholder engagement.

Key highlights for us in this report show how we are:

- supporting people in vulnerable situations – signed up more than 6,000 people to the Priority Services Register to ensure they receive all the benefits they're entitled to when they need them most.
- raising awareness of carbon monoxide-our revised strategy means we provided more than 15,000 CO alarms during 2015/18 with 67% going to customers most affected by this poisonous gas.
- taking people out of fuel poverty connecting more than 4,000 homes to our network through our Warm Home Assistance scheme, saving them more than £2.9m.
- reducing our impact on the environment-more than 10t of people to our gas network and potentially powering more than 126,000 homes with green gas, following 13 new biomethane connections.

I hope you enjoy seeing what we've achieved over the last three years. We're looking forward to improving on these figures in future.



Graham Edwards, Chief Executive

Raising awareness of carbon monoxide (CO) is our stakeholders' number one priority, and we take a strategic, focused approach to awareness-raising – delivering improved outcomes for those most affected by CO.

We've revised our CO strategy, adopting a targeted, multi-channel approach and formed strategic partnerships to deliver better outcomes for stakeholders.

Strategy review refocuses CO safety approach

We assessed our strategy, identifying changes that would deliver valuable outcomes to those most affected by CO in a sustainable way.

The groups most affected by CO are:

- aged over 65 or under 14.
- in CO 'hot spots' areas that have a high number of CO-related incidents.
- in vulnerable situations.

We analysed the demographics from the people we gave CO awareness information and alarms to at the 2015 agricultural shows we attended and realised we weren't targeting people most affected by CO.

So we refocused our strategy to more effectively target those most affected by:

- using data from CO-related interactions, captured whenever we provide someone with a CO alarm.
- forming strategic partnerships with trusted organisations to access hard-to-reach target aroups.
- revamping CO-related communications making them more accessible
- providing CO safety training to our colleagues and partners.
- tailoring our approach to the audience.

Harnessing data to target awareness campaigns

Our CO-related calls are used to map CO 'hot spots' - allowing us to target our interventions to areas most at risk of CO poisoning.

We referenced our gas map tool in our 2013/15 DRS - since then, we've improved the quality of our information by overlaying areas of multiple deprivation and vulnerability data, making our campaigns even more targeted.

Using this new insight, we can identify smallerscale events, attended by groups most at risk of CO poisoning, such as parent and baby, and over-65s mornings. Our stakeholders endorsed this approach.

To measure impact and awareness, allowing us to refocus our approach if things aren't working or scale them up if results are positive, we provide surveys with each alarm we issue, containing a range of

Average increase during 2015/18:

- awareness of CO = 40%.
- likelihood to take further action = 98% (10%) increase on 2013/15).

We still attend agricultural shows, as they had more than 1.1m visitors between 2015/18, but we now share stand-space free of charge with our Fire & Rescue partners and concentrate on raising CO awareness in safety zones, which attract a large number of children – our target demographic.

At the 2016 Royal Welsh Show, we won the *Best* Exhibit of Educational and Instructional Value award for our gas safety messages, including CO, validating the information we provided was aimed at the right level.

We've also targeted CO messaging to a key audience - caravaners and campers, by having CO safety messages on more than 6,900 caravan passes at the Royal Welsh Show. We wanted to make sure they're aware it's not just mains gas that can produce CO and that they should never use a BBQ or portable heater in an enclosed space.

Our data also showed clear parallels between those most affected by CO and those who would benefit from our other support measures, so we've amended our processes to automatically provide alarms to

- sign up to the Priority Services Register (PSR).
- have a free gas connection through our Warm Home Assistance scheme.
- have their meter moved free of charge for health or mobility reasons.

This change has had a big impact, with more than 5.400 alarms distributed to these key target audiences during 2015/18, helping to protect groups most affected by CO.



The CO alarm for a new generation

We always provide and promote the use of audible alarms certified to BS EN 50291 - as recommended by the HSE - and during 2015/18 we've supplied more than 15,000 - at a cost of more than £109,000. Since early 2018, the alarms we issue can link to a smartphone app, giving clear, simple and accessible information on their operation and the presence of CO, which can be accessed by customers and engineers.

Partnerships come to the fore

We believe joining forces with partner organisations who share our values creates more impact because information and services are provided by people customers already know and trust.



So we've focused on creating new strategic partnerships and maximising the benefits they bring for those most affected by CO.

We work with six of the seven Fire & Rescue services in our network, along with two organisations that help older people to live independently: Care & Repair and Age Cymru, and our fuel poor partner, Warm Wales.

We've asked our partners to focus on raising awareness of CO poisoning, as well as our other support measures and services - turning best practice into standard practice.

As our partnerships have developed, so has the percentage of CO alarms provided to those most

42% 2013/14 **67%** 2017/18

We've trained 98 caseworkers and Fire Service personnel – awareness of our support measures among those who received our training has risen by 112%, improving the service they provide to people in vulnerable situations.

Excellent information and great partner to get on board, thank you

Fire Officer

Our partners install CO alarms as soon as vulnerability is identified, so customers are protected straight away. This is something stakeholders at our Regional Workshops said was important. Our partners have installed 3,384 CO alarms to those who need them the most, 2.600 during 2017/18. We will continue to add to and evolve our partnerships in the future, with a focus on establishing two-way referral processes

We've revamped our CO-related literature to make it as accessible as possible. Following feedback from stakeholders, who suggested manufacturers' CO installation manuals were difficult to follow, we created a new visual guide: 'How to install a CO alarm' that's included with every CO alarm. Feedback has been great, with 100% saying they found our quide useful, increasing the likelihood our alarms are installed correctly.

Thank you for sending the alarm and thank you for thinking of my health and safety CO alarm recipient

We've continued our partnerships with safety centres Lifeskills and DangerPoint who've raised CO awareness to more than 52,000 visitors during 2015/18, many of whom are schoolchildren, an at-risk group. Along with CO-safety messages and zones, they promote the GDN CO Safety Competition, aimed at children aged 5-11.

We also arranged and paid for transport for 98 schoolchildren to visit the two centres, as their schools could not afford it.

We promote gas safety in Roundup magazine, which targets readers with sight loss, professionals working in the sector and organisations/groups for people with visual impairments. This has been distributed to more than 11,500 people during 2015/18.

The COdebreakers

characters that appeal

In 2017, we created Chloe & Ben - The COdebreakers, superheroes who help us raise awareness of CO online through an interactive game called Crack the COde. Having a presence online and using



to a wide range of audiences means we reach lots of people in a cost-effective way. Crack the COde:

- has been seen by more than 111,000 people.
- is most popular with under-14s (34%).
- has been completed by more than **810** people.
- has increased awareness of CO by 36% and likelihood to take further action by 97%.

We've created three short animated films featuring The COdebreakers to raise awareness of CO at different times of the year among different stakeholder

- Gastonbury reminding festival-goers about BBQ safety.
- Mend-It Mews² reminding homeowners to ensure appliances are serviced annually by a Gas Safe Registered engineer.
- Risky Road³ reminding people to never ignore any alarm, especially a CO alarm.

These are promoted on social media and strategically targeted at audiences most affected by CO, using Facebook's audience selection. They've been viewed more than 300,000 times and shared with the other GDNs

We're constantly raising awareness of CO through our social media channels. During Gas Safety Week, we also produced CO safety infographics that we shared with our partners and stakeholders - including politicians in our network, leveraging their contacts, so they could spread our safety messages further than we could on our own. This information was seen by more than 11,000 people on Facebook.

Gas Safety Ambassadors help deliver 'for life' messages

Our colleague Gas Safety Ambassador (GSA) role was created to:

- train colleagues about the dangers of CO.
- deliver 'for life' messages to under-14s a target

We've recruited 20 GSAs, who go into local schools and deliver an engaging, interactive session on CO awareness and gas safety.

So far, more than 550 pupils have been reached, with more visits planned in 2018.



eally positive, a good way of introducing the armful nature of CO – a nice day of activities Teacher, primary school

Between 2015 and 2016, we took our CO puppet to 10 schools, reaching more than 1,200 pupils. While the puppet had impact, it was difficult to arrange visits. Our initial findings suggest more personalised face-to-face visits from GSAs to smaller groups of children have more impact and reach, offer **better value** and help **embed understanding** of CO across our business and future bill payers.

We include CO awareness training in our company induction for new starters, helping keep our colleagues and their families safe: 100% said it was useful.

Like other GDNs, we've adopted Cadent's Safety Seymour, a superhero bear that has come to rid the world of CO poisoning. It's targeted at Year 2 pupils and includes CO-related activities and games. Our GSAs deliver this and, so far, we've reached more than 90 pupils.



During these visits, we publicise the CO Safety Competition and in 2017/18 we produced new branding for the competition - now used by all networks. Consistency and collaboration has led to a more impactful campaign and the number of entries has increased each year. In 2016/17 we received the most entries of all the GDNs (317) and our first national winner, a brilliant video4 from pupils in north Wales. The communications campaign we ran to promote the competition in our network was a finalist at the Cymru Wales PRide Awards.

Political engagement

CO is a UK-wide challenge, so working collaboratively with other GDNs and industry experts avoids duplication of effort, increases impact and makes financial sense.

We're members of the All-Party Parliamentary Carbon Monoxide Group (APPCOG) and regularly attend events to help influence national policy. In 2017, we supported a campaign to raise awareness of CO at festivals and also sponsored an IGEM conference on CO. This conference was such a success, we plan to host another in 2018.

Alongside fellow APPCOG members, we supported a report, Carbon monoxide alarms: Tenants safe and secure in their homes. This highlighted the risk of CO poisoning in the private-rented sector and provided a set of recommendations to address these risks. We're currently reviewing these as part of our ongoing strategies to ensure this at-risk group features in our future plans.

The regulations on CO alarms for private-rented housing are mandatory in England and Scotland but optional in Wales. We've raised this inconsistency as an issue and we plan to meet politicians who can help us change policy and protect lives. We've also promoted CO awareness in UK Landlords magazine, to highlight an important message to more than 30,000 readers each year.

TUP PRESS: In May 2018, Minister for Housing, Communities and Local Government, Dominic Raab innounced a review of carbon monoxide alarms to look at extending the mandatory requirement to have CO larms installed with **all** fuel types, including oil and gas – taking note of a key recommendation from the enants safe and secure in their homes report.

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- https://www.facebook.com/wwutilities/videos/1467168926699814/ 4 https://www.facebook.com/wwutilities/videos/1404619379621436/

4 Environment

We're constantly embracing new ideas to protect the environment and promote sustainability and we're proud of our record.

Gas networks have a key role to play in developing a sustainable, reliable, integrated energy system that's affordable to all. Crucially, the solution needs to meet the energy trilemma criteria: low carbon, low cost and secure, while causing the least disruption to our customers and stakeholders. Over the past three years, we've explored a range of options to identify what the future of energy might look like.

Leading the way to decarbonise heat: 2050 Energy Pathfinder

Policymakers and the energy industry face the challenge of how to best resolve the energy trilemma, creating a future energy system that provides a secure supply of power and heat that's affordable and sustainable. Transportation fuel has now been added to the mix, so we need to consider that, too. There is **unlikely to be one solution** to all the challenges, but we know we need to find ways that will be **least disruptive to society** – and with **80% of homes using gas to provide heat, the challenge is substantial**

To find options for different energy mixes, **we've built** a **unique simulator** – the 2050 Energy Pathfinder, which can help policy makers work out the cost and feasibility of various energy scenarios.

Different energy scenarios can be input into the simulator and then modelled to illustrate the associated costs, carbon impact and any shortfall/surplus in heat and power supply.

Our simulator accommodates the demands of energy distributors, system planners and regulators by seamlessly integrating heat, power and transport needs with electricity and green gas generation.

It was first used to evaluate proposals for a *'Cornwall Energy Island'* in 2015. It identified that the proposed use of renewable electricity sources for heating requires large seasonal storage capacity, at a cost consumers can't afford*

We've since modelled several solutions, including for Swansea in south Wales, where it demonstrated the role tidal lagoons will play in an integrated energy future, and the options for when they aren't generating power.

Today, it can be used to model decarbonisation pathways in the UK and across Europe and to assist in the first stages of energy strategy planning, and will soon be available for others to use.

Affordable carbon reduction – the Freedom Project



Freedon Project

We're **collaborating** with Western Power Distribution (WPD) and PassivSystems on the Flexible Residential Energy Efficiency, Demand Optimisation & Management (Freedom) Project, alongside Delta-ee, Imperial College and City University.

The project is **investigating the potential of multi-vector solutions** in helping decarbonise domestic heating and maximise the use of existing infrastructure.

Based in Bridgend, Freedom is investigating the implications of hybrid heating systems, where houses use a standard gas boiler and an air source heat pump with a smart controller.

The project has installed 75 hybrid heating systems

in private and social housing, representative of UK housing stock that will be around in 2050.

So far, it's demonstrating hybrid systems could help deliver an energy system that is affordable, secure and low carbon, while avoiding costly and disruptive electricity network reinforcement or in-home deep insulation retrofits and replacement of existing heating systems.

We were invited to present the project findings with BEIS officials to representatives of the German government in Berlin in 2018, who are **interested in how this would work as a European heat solution.**



The solution could already benefit off-gas-grid areas where electricity networks are most constrained, providing financial savings now and being future ready for smart control.

In 2018, we shared our findings with fuel poverty charity National Energy Action (NEA), which was pleased we took into account solutions that have the least impact on the customer, especially those in the most vulnerable situations.

Having seen a demonstration of the Freedom Project, and considering NEA's own experience of this technology, I believe that hybrid heating systems are one of the sustainable tools available for decarbonising domestic heating. The technology promises to provide a modern and affordable way of heating properties of those people in fuel poverty. A carefully configured and managed system may also provide network operators with a powerful tool to help manage their distribution systems with minimal impact on the end users.

Technical Development Manager,
National Energy Action

Paying for new energy solutions

The Department of Energy & Climate Change (DECC) 2013 Heat Pathway suggested heat pumps would replace gas central heating in suburban areas and communal heating networks would replace central heating in urban dwellings.

We researched such a switch from a consumer perspective to understand the implications – the results were surprising:

- initial capital cost is the key factor in consumer switching behaviour – around £10,000 in this case.
- 80% of consumers would not or could not afford to change to lower-carbon heat provision.
- large subsidies would be needed to change consumer preferences.

We **shared our research with policymakers** to help inform future low-carbon investments. BEIS thinking on different approaches now includes decarbonising heat using lower-carbon gases, such as hydrogen and biomethane – and hybrid solutions.

Our Health, Safety and Environmental Leadership Framework is rated 'exemplary' by the Health & Safety Executive

In 2018, we gained renewed certification for the Asset Management standard, ISO 55001, following an audit which focused on our strategic approach to managing the significant challenges we face around the future of energy

We're ahead of our target to reduce carbon dioxide emissions by 16% over the current price control period

We've maintained certification to ISO 14001 for our environmental management

In 2016, we created a dedicated Green Gas Team to bolster our approach

Alternative gases support heat decarbonisation

Reducing gas leaking from our pipes is our biggest contribution to reducing carbon emissions — as methane, present in natural gas, is a potent greenhouse gas. Through targeted mains replacement and a focus on managing network pressures, we've continued to reduce shrinkage and leakage year-on-year.

2014/15 2015/16 2016/17 394.8 Gwh 381.1 Gwh 378.5 Gwh

As we try to resolve the energy trilemma and reduce the carbon content of natural gas, alternative gases offer a way forward to decarbonise and help reduce emissions.

Biomethane

Gas Safety (Management) Regulations stipulated gas can only contain ≤0.2% oxygen, as higher levels could cause internal pipeline corrosion.

Biomethane is one of the cheapest sources of renewable energy – but it typically has an oxygen content of <1%.

However, research which we commissioned GL Noble Denton to carry out in 2013, showed oxygen levels from biomethane wouldn't compromise the integrity of the pipelines. The HSE granted a class exemption for biomethane which has opened up more connection opportunities.

We had five biomethane plants connected before 2015 and since this change, we've connected a further 13 during 2015/18 – with four more planned.

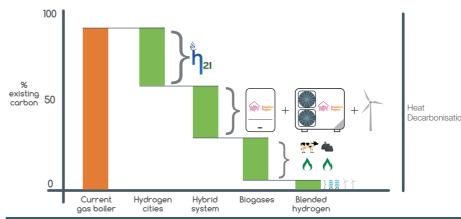
These 18 plants can inject a capacity of **1.6TWh**, equivalent to powering more than **126,000** homes.

lydrogen

Hydrogen can play a role in helping the UK reach its decarbonisation targets.

We collaborated with Northern Gas Networks on the H21 project in Leeds to establish whether a city's existing gas grid could be converted to hydrogen.

We've since **committed investment** to analyse what impact converting to a hydrogen network would have in Cardiff and Bristol. This will **help us shape our vision for the future** with the results expected in May 2018.



An integrated approach to decarbonise domestic hea

Flexible power generation supports intermittent renewable energy

More intermittent power sources such as wind, solar and tidal means more flexible generation capacity is needed. This is where gas networks play a key role, providing the storage and flexibility to enable the growth of renewable generation.

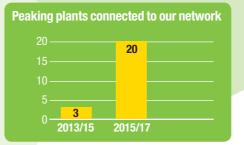
We've seen a big increase in power station enquiries for small peaking plants and have **connected 20 sites since April 2015**. Peaking plants are available in minutes to ensure customers' power supplies are reliable

They can have a large impact on our operation and storage requirements, particularly when connected at lower pressure tiers. Our arrangements with the National Transmission System (NTS) mean we usually have to bring in gas from the NTS evenly and provide storage so it's available to the peaking plant when needed

To ensure reliability, we've updated our planning and operating processes, including:

- significant liaison with plant developers and operators.
- transient network analysis for power generation
- Network Exit Agreements and better site flow information, which we've discussed with other networks.

We **led the development of industry arrangements**, including Uniform Network Code modifications, so everyone knows what happens should the network be constrained and our flexibility affected.



First national future flood map is climate change game-changer

We worked with data specialist Landmark Information Group and flood modelling experts Ambiental Risk Analytics on climate change impact mapping and created Britain's first national future flood map.

We can now assess flood risk and river erosion under different emissions scenarios. This allows us to assess the projected impact on the gas network, where pipes may be exposed by river bed and bank erosion so we can proactively protect our infrastructure at a lower cost.

We're the **first business to use the data** as part of its UK Climate Change Adaptation Risk Assessment, Reporting and Investment requirements.

This innovation has **involved a range of stakeholders**, including the Met Office, Defra, BEIS,
UKCCC, HM Treasury, Environment Agency, Natural
Resources Wales and Welsh Government. The
data is undergoing tests across our region in a live
environment, however the product is **now available for other organisations to benefit from**, supporting
other utilities in getting best value from their
investment programmes.

We've represented all UK gas and electricity transmission and distribution networks in the development of the next suite of climate change forecasts in the non-government steering group. These forecasts, due later in 2018, will be used to update the climate change impact mapping.

Sweating the small stuff – marginal gains support great environmental stewardship

Award-winning approach to biodiversity

The Abercarn Gasworks was an old coal gas production facility, including two below-ground gasholders. The surrounding **contaminated ground needed to be remediated to protect the river** from harm.

Local anecdotal evidence and ecological appraisals suggested the site was potentially sensitive due to protected habitats and species.

We used ecological specialist contractors and worked closely with Natural Resources Wales (NRW) and Caerphilly County Borough Council (CCBC), as well as regularly engaging with local residents and businesses, to deliver an environmental improvement programme to manage contaminated ground and consider ecological/biodiversity protection and enhancements.

To cultivate a lasting bio-legacy that respects the integrity of the area and enhances the local ecosystem, we identified issues and actions using local and national planning policy, local biodiversity action plans and Section 42 Species/Habitats of Principal Importance (SPI/HPI) for Wales.

Environmental improvements included:

- 640t of material excavated and reused.
- 216t of Japanese knotweed and asbestoscontaminated material removed.
- 75% of material treated and reused on site.

Our approach to remediation was **recognised with a Brownfield Briefing Award.**

Innovative solutions

We're always looking for ways to minimise our environmental impact and have introduced a number of innovations:

5

- ductile iron window cutters reduced time taken to cut a service transfer window in our iron mains from 45 minutes to 15 minutes, helping reduce environmental emissions each time we use the cutter, saving 6.4tC0₂e.
- thinner-walled pipes we've moved to thinnerwalled high-density polyethylene pipes, saving 126tCo.e.
- joint locators these make it easier to locate leaking valves, reducing the number and size of excavations and volume of reinstatement materials.
- pipe coil trailers we own 18 pipe coil trailers that dispense 500m of pipe at a time, saving 1,000CO₂e a year.



Greener transport

Our fleet covers an estimated 19 million road miles each year — and we're conscious of its environmental impact. So we've been moving from the Euro V standard to the latest emissions standard, Euro VI.

The standard aims to reduce harmful emissions, setting strict limits on CO₂, NOx, SOx and particulate matter. We're committed to replacing our older vehicles with vehicles equipped with the latest emissions technology.

As a result, the following fleet vehicles are now Euro VI compliant:

- 60% of 225 company cars.
- 74% of 30 heavy goods vehicles.

We're exploring hybrid and CNG-powered trucks and vans to further reduce the impact of our fleet, and, in 2018, our company car policy is being amended to encourage the use of hybrid and electric vehicles.

We're trialling a new lithium battery pack in our vehicles, which will allow our operational colleagues to use power tools without using the engine to produce electricity. The battery pack charges while the vehicle is moving, reducing emissions on site and the noise of our work. If successful, we're planning to roll them out across our network.

We've also helped introduce gas-powered buses in Plymouth and are due to adapt our network to enable 110 gas buses to connect in Bristol.

Greener footprint

Reducing the carbon impact of our properties is also important. We have **adopted best practice** to reduce our properties' carbon impact, including:

- replaced 1,400 fluorescent lighting with 300 LED lighting in all our offices and depots – reducing our energy consumption and therefore our greenhouse gas emissions.
- year-on-year the amount of waste we've recycled from our head office has increased.

* More than £60,000 per household

6 <mark>Social</mark>

Providing outstanding service, especially for people in the most vulnerable situations, is one of our priorities and, along with fuel poverty and carbon monoxide, is in our stakeholders' top priorities too.

2015/16 = Identify 2016/17 = Train 2017/18 = Embed

Our Priority Customer Team, created in 2014, began embedding support measures and services for customers in vulnerable situations across our network, so we can provide a bespoke service for all.

Strategic approach improves lives of those who need most support

Our Priority Customer Strategy focuses on delivering positive social outcomes for customers in vulnerable situations.

Its key pillars are:

- making every contact count ensuring our engineers are trained to identify vulnerability.
- leveraging the power of partnerships –
 working with others to reach people in vulnerable
 situations, promoting our support measures and
 services

Making every contact count

Where we can support people in vulnerable situations, we will. Where our partners are best-placed to support, we call on them to assist.

When there's a loss of gas supply, we restore gas to customers in the most vulnerable situations first.

Awareness of the Priority Services Register (PSR) is low, so we are raising its profile. All GDNs trialled ways to capture PSR data — we developed an app. This proved the most effective and was **rolled out to all engineers and shared with other GDNs**.

We trained **1,250 customer-facing colleagues** across **19 locations** to help sign people up to the PSR. We've made signing up as simple as possible and our app gathers consent details, which we share with energy suppliers, water companies and DNOs.

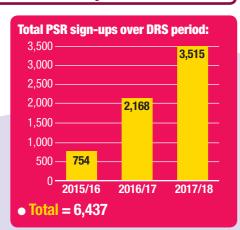
Inconsistent NEEDS codes were a barrier to data sharing – working with DNOs, GDNs and suppliers, we helped create a consistent set, now adopted industry and utility-wide. We were the first network to secure data-sharing agreements with other utilities

Leveraging partnerships

We've reviewed our partnerships to maximise effectiveness for customers in the most vulnerable situations. So, we've trained our existing partners to understand and promote our other support measures as well.

We work with six out of the seven Fire & Rescue services, Care & Repair, Age Cymru, Warm Wales, Nest and Speakeasy – **trusted organisations** who promote services on our behalf and can offer other services such as debt advice, counselling and tariffswitching. They've helped us achieve **more than 1,000 PSR sign-ups during 2015/18 and 871 during 2017/18**.

We provide annual partner training programme and a Partnership Pack which contains all the information our partners need to provide valuable outcomes for the people they meet.





Stronger Together conference

With the support of our fuel poor partner, Warm Wales, we initiated the first multi-utility conference to focus on a collaborative approach to supporting customers in vulnerable situations – something stakeholders at our Vulnerable Customer Forum said we should do more of.

The aim was to bring together utility companies that share a similar footprint – Dŵr Cymru Welsh Water and Western Power Distribution in this instance – to find a way of **creating stronger relationships and improve collaboration** to help support the most vulnerable in society.

The event was attended by 104 delegates from housing associations, local authorities, charities and the voluntary sector, and helped us to broker partnerships that have brought positive outcomes to customers in vulnerable situations.

We are the first utility company to join the Energy Efficiency Association (EEA) and will work with other members to define our role in tackling fuel poverty.

Support measures and training

We've **introduced new support measures** to help customers in vulnerable situations.

When gas supply is interrupted, we offer alternative heating and cooking equipment. In 2015, we also created a Warm Pack (hot water bottle, blanket, thermos flask, socks, gloves and disposable hand warmers), developed with our Vulnerable Customer Panel and shared with GDNs. After the charity Dying to Keep Warm told us people with

BS18477 Inclusive Service Provision

In our 2013/15 DRS, we said we'd aim for the Inclusive Service Provision BS18477 to confirm we meet requirements to help customers in vulnerable situations. We're the **first GDN to receive the BS18477 standard** – for our whole organisation and, in 2017, we **completed a verification audit.** This standard underpins our whole approach.

dementia can injure themselves on fan heaters and hot-plates, **we introduced oil-filled radiators and microwaves**. We're currently trialling other support measures – waterless washing kits, heated seat warmers and food packs.

We also provide hardship payments for:

interruption.

- extra work after we've been to a customer's property.
 overnight accommodation if there's an extended
- moving inaccessible meters for customers in vulnerable situations.

I think you've done very well and included everything essential

Warm Pack recipient

	Quantity purchased	Value
Fan heaters	23,017	£163,449
Hardship payments	_	£155,860
Warm Packs	5,500	£73,085
Hot-plates	4,925	£52,977
Oil-filled radiators	771	£24,906
Microwaves	268	£9,900
TOTAL		£480,177

Our partners can identify if a Locking Cooker Valve (LCV) would be appropriate, or if people are eligible for a free gas connection through our Warm Home Assistance (WHA) scheme.

We install LCVs free, so gas appliances can be used safely. We have installed 30 during 2015/18 – where it is the best-cost option for the homeowner, with 29 during 2017/18.

We collaborated with other GDNs, as a member of the ENA's LCV Best Practice Group, to identify other ways to promote LCVs, such as sharing information stands at events.

To raise colleague awareness of specific vulnerabilities, we've worked with Dementia Friends, Action on Hearing Loss and The Royal National Institute of Blind People. Now, we've:

- created 120 Dementia Friends including our Chief Executive and Exec team.
- created four Vulnerability Champions, with more planned this year.
- trained 150 managers to identify vulnerability and deal with sensitive issues appropriately.

Now I've had the training, I feel in a much better position when I meet someone with dementia – I know what to do First Call Operative, Wales & West Utilities

Clear communication

Accessible information for all is very important, as confirmed at our Regional Stakeholder Workshops. So we:

- use plain English in our communications.
- make our websites easy to navigate with links to other support.
- introduced Recite Me, which reads website text out loud, to help visually impaired customers.

Getting behind community support groups

We provide financial support for organisations with agendas aligned to our strategic approach – and who provide tangible, positive outcomes for our customers. We support:

- Age Cymru's HandyVan more than 1,800 people in vulnerable situations have benefited from our support measures and services during 2015/18.
- Dementia Action Alliance provides funds to transport people with dementia to Music for the Mind sessions to improve wellbeing.

Reducing fuel poverty

To help eradicate fuel poverty through our Warm Home Assistance (WHA) scheme our Fuel Poverty Strategy focuses on:

- using data and building partnerships to identify off-grid properties.
- promoting our WHA scheme in local communities.
- sharing knowledge to help customers and organisations access funding.

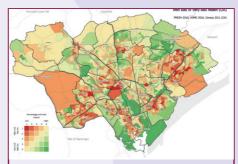
Tackling vulnerability: a multi-channel approach

Mapping out the problem

In 2013, we worked with our fuel poverty partners, Warm Wales, to create the Foundation data for Robust Energy Strategies for Housing (FRESH) mapping tool. FRESH takes 'big data' related to poor health, income levels and fuel poverty and matches it with street-level maps of known poor housing. This identifies 'street clusters' of energy inefficient households with occupants in fuel poverty and other vulnerabilities.

FRESH mapping has led to a number of projects over the last three years that **go beyond providing a free gas connection.**

It **avoids duplicating effort and harnesses 'local knowledge'** to identify vulnerable households.



Fuel poverty + over 65s + poor health data uploaded to FRESH map

Phase 1: Creating working together 'hubs'

As part of NEA's *Healthy Homes, Healthy People* fund, in 2016/17, working alongside councils in Cardiff and Flintshire, we invested £45,000 to identify Fuel Poor Reduction Hubs, using the FRESH mapping tool and 46 GP patient referrals.

The project has **supported 293 people**, and led to referrals for:

- housing, health and safety visits.
- energy efficiency improvements.
- disabled facilities grants, adaptations and financial assistance.
- health-related advice and referrals to improve outcomes and encourage behaviour changes.

FRESH mapping and our Fuel Poor Reduction Hubs have been included in the Citizens Advice Local Authority Toolkit: Supporting Fuel Poor and Vulnerable Households.

Phase 2: Community Energy Champions

We've launched the Community Energy Champions (CEC) project – supported by stakeholders at our Regional Workshops.

CECs are trained to identify 'hard-to-reach' vulnerable and fuel-poor households and offer advice on:

- debt and benefit maximisation.
- home and personal safety.
- affordable warmth.
- health and wellbeing.

As these households are vulnerable, CECs also offer our full range of support services.

To maximise outcomes, we're **trialling three different approaches:**

- South Wales Working with the local authority and using FRESH mapping, we've targeted 1,000 households in Llanishen, Cardiff, focusing on fuel poverty, ill health and over-65 population. We've now moved to other areas of Cardiff, and will start a project with Rhondda Cynon Taf Council in 2018.
- North Wales We seconded an Environmental Health Officer from Flintshire Council who has created a network of support organisations and processes to work with six councils in north Wales. This project deals with targeted referrals of households with health-related issues, delivering a one-stop-shop, helping the household address fuel poverty and improving health and wellbeing.
- Cornwall We're working with the local authority, to help them adopt FRESH mapping, and we've trained their Energy Officers on our support measures.

Multi-channel approach: summary of investment and benefits September 2017 – 31 March 2018

(north & south Wales & Cornwall)	benefited	saving/ home	(Year 1)	savings over 5 years (£122,000 leve investment)
£122,000	379	£386	£146,294	£730,000
Contombor	2017 Co	ntombor	2010	

September 2017 – September 2018

	savings	Projected savings over 5 years (£209,000 level investment)
£209,000	£617,000	£3,000,000

Working collaboratively has proved invaluable in lifting people out of fuel poverty. We're committed to this approach and will be trialling telephone referrals through organisations, such as Citizens Advice and Centre for Sustainable Energy, in the future.

Connecting to our network

Since 2015, **4,205** more families are no longer living in fuel poverty and have saved almost **£2.9m** and **10.9** tonnes of carbon each year* thanks to our WHA scheme. This is fewer than during 2013/15 due to eligibility criteria changing. We're

looking at options to overcome this challenge to help us meet our target of 12,590 connections, in excess of our allowed price control revenue in GD1. Solutions include building stronger partnerships with local authorities and suppliers and promoting our scheme at local/national events and through social media.

In Gaerwen, we targeted stakeholders such as local politicians, residents, businesses and Citizens Advice to help promote our scheme. To further reduce connection costs, we self-funded the up-sizing of an approach gas main to a new science park.

Lack of funding for internal appliances meant the scheme didn't take off – a regular issue we're trying to overcome. So in 2017, we partnered with Eon to provide money and interest-free loans to customers and people who qualify through our WHA scheme so they could buy heating systems, appliances and energy saving measures, which has helped us to progress a number of connections as a result.

We've supported NEA, including sponsoring the 2016 NEA Cymru Conference with Western Power Distribution to raise awareness of our WHA scheme. We sit on the Cross-Party Group on Fuel Poverty & Energy Efficiency to offer support, knowledge and advice on initiatives such as tariff-switching and smart meters.

During 2017/18, we worked with the Welsh Government on ARBED Phase 3 schemes, including Blaenau Ffestiniog and Lysfaen and two new infill schemes in Flintshire, to lift more people out of fuel poverty over the next three years.



Supporting the wider community

We've assisted organisations, creating community spaces. For example, Cegin Noddfa, a not-for-profit social enterprise that helps the most disadvantaged members of its local community, contacted us about converting a Post Office into a kitchen and restaurant. This will provide affordable, healthy food to vulnerable people on low incomes while training unemployed young people to give them valuable skills. We connected gas free of charge to help keep their costs down.

Every time we connect a new customer, we provide them with our *Now that you're connected...* booklet, which provides gas safety advice and energy saving tips.

During 2015/18, **145 colleagues** gave more than **180 hours** of their time to enhance the communities we serve, through a number of different projects such as renovating community halls to raising funds for local primary schools.



*Average savings per property: £695 and 2.6 tonnes of carbon

