

Energy Efficiency in North Cornwall

How energy efficiency benefits residents and businesses in
North Cornwall constituency



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**Association for the
Conservation of
Energy**

Key Points

Everyone is worried about their energy bills, and for some people keeping their home warm is not affordable. The only long term solution is to stop wasting fuel and leaking warmth from our homes by improving insulation and ensuring everyone has a modern heating system.

It can be expensive to heat and power our homes, particularly for those living in rural areas without a gas connection.

- 18,000 of the 39,000 households in North Cornwall are connected to mains gas and typically pay around £1,400 a year for gas and electricity. The remaining 21,000 households in the area have to use other heating fuels which are more expensive. An oil-heated home can spend as much as £2,500 a year on heat and power¹.
- 7,000 homes in North Cornwall have been given the very worst energy ratings of F or G, and therefore waste hundreds of pounds worth of fuel every year. In fact North Cornwall residents are three times more likely to live in these very inefficient homes than those elsewhere in the country².
- Around 5,500 households in the area are classified as 'fuel poor'³. This means they can't afford to keep their homes warm due to a combination of low incomes and high energy bills.

Significant upgrades to the efficiency of homes in North Cornwall have been made in recent years.

- Energy efficiency schemes have helped to insulate 7,000 lofts and 5,000 cavity walls in the area since 2005. At the same time more than 6,000 efficient boilers have been installed⁴.
- 3,058 solar photo-voltaic systems and 1,701 low carbon heating systems have been installed, enabling homes and businesses to generate their own electricity and low carbon heat⁵.

These improvements generate a wide range of benefits for the area.

- North Cornwall residents spend around £83 million on energy bills every year⁶. Cutting fuel bills means less money leaving the local economy and more spent in local shops and businesses.
- Many of these vital improvements are delivered by local businesses and tradespeople. An ambitious UK energy efficiency programme would support 8,400 jobs in the South West⁷.
- Cold homes have been shown to be damaging to both physical and mental health. For every £1 invested in renovating cold homes the NHS saves 42 pence in reduced hospital admissions and GP visits⁸.

There are still huge opportunities to improve the efficiency of homes in North Cornwall further⁹.

- Around 10,000 homes could benefit from cavity wall insulation, and a further 10,000 from solid wall insulation.
- Around 9,000 homes could improve the level of insulation in their lofts.
- Around 25,000 homes could upgrade to more efficient heating systems.

Despite this potential, National policy commitments would see little progress made.

- Current national policy commitment would see just 300 homes helped each year to 2020¹⁰.
- Those in need of more significant works, common in rural areas, would miss out.

There are 31,000 homes in North Cornwall that have an energy efficiency rating of D or worse². Upgrading the energy efficiency of these homes would present a huge opportunity to cut bills, improve residents' health and well-being and boost the local economy. To make this happen and unlock the benefits to the Constituency, action is needed both locally and nationally.

The story so far

The cost of gas and electricity is 30% higher than it was in 2010 and double what it was 10 years ago¹¹. To combat these historically high prices, a local army of unsung heroes have been fighting to keep bills in check and make sure everyone can afford to keep their homes warm in the winter.

In the last 10 years North Cornwall has seen activity in improving insulation, replacing inefficient heating systems and developing renewable energy technologies. We estimate that since 2005 more than 18,000 significant works have been undertaken to improve the energy performance of homes in North Cornwall.

Table 1: Estimated number of common efficiency improvements made to homes in North Cornwall since 2005⁴

Lofts insulated	7,000
Cavity walls insulated	5,000
Efficient boilers installed	6,000

New insulation technologies such as cladding for solid walls have also greatly benefitted older homes

which would otherwise still be leaking heat.

In addition North Cornwall residents and local businesses have taken advantage of incentives that enable them to generate their own electricity and low carbon heat.

Table 2: Low carbon technologies installed in North Cornwall since 2010⁵

	In homes	For businesses
Low carbon heating	1,392	309
Solar photovoltaic systems	2,897	161

National policies have played an important role at the local level. Charities in North Cornwall have been able to access funds to provide low income households with the heating upgrades they desperately need, and incentive schemes have encouraged people to try newer technologies like solar panels. The dedication of local businesses and charities, combined with national funding and incentive schemes, have been pivotal in the progress made so far in North Cornwall.

Community Energy Plus: helping Cornish communities get a better deal

Community Energy Plus is a charity and social enterprise providing households in Cornwall with energy advice, collective fuel purchasing and support for community energy projects. Their Warm Me Up project provided over 1,800 households with energy advice, practical support and help to access funding. Recipients reported not only that they were able to save money and keep warmer , but also that the help had reduced stress levels as they were better able to take control of their energy debt.

Community Energy Plus are looking to the future of energy use in Cornwall but Chief Executive Dr Tim Jones said: “There are still people in Cornwall living in Dickensian conditions, only able to afford to heat their homes for an hour a day. Projects like Warm Me Up are crucial to helping people live decent and healthy lives but so is the need for energy efficiency support mechanisms which meet the needs of our rural housing stock. Changes to the Energy Company Obligation and the absence of any other national energy efficiency initiatives mean that we expect to see more people contacting us for help but sadly the assistance available is extremely limited.”



Real benefits for North Cornwall

It is easy to see the benefits of reducing your energy bills and having a warmer, cosier home, but the impact of improving energy efficiency in North Cornwall goes much further.

Well maintained homes

Energy efficiency works are a vital part of maintaining your home. Cold homes often become damp which can lead to mould and further complications in the long run. Insulated wall cladding will tackle damp permanently and can rejuvenate the appearance of a home.

Keeping money in the local economy

We estimate that North Cornwall residents spend approximately £83 million annually on domestic energy bills⁶. Money spent on fuel is mostly taken out of the local economy, so cutting bills means that households have more money to spend in local shops and businesses.

Creating skilled jobs

Economic modelling has shown that an ambitious UK energy efficiency programme would create 8,400 jobs in the South West⁷. Energy efficiency works rely

on skilled tradespeople and small-scale contractors. This means that these jobs are spread across all communities and not just concentrated in a few industrial areas.

Improving health and wellbeing

Cold homes have been shown to be damaging to both physical and mental health. Children living in cold homes are significantly more likely to suffer from respiratory problems such as asthma and bronchitis. It has been shown that for every £1 invested in renovating cold homes, the NHS saves 42 pence in reduced hospital admissions and GP visits⁸.

Business productivity

Energy costs can be a significant overhead for businesses. Improving the efficiency of commercial buildings, vehicles and equipment can cut waste and add to the bottom line. Helping businesses to identify these opportunities can boost productivity and make local businesses more competitive.

Improving local energy resilience

It is easy to take basic services like gas and electricity for granted, but our energy security has become a significant concern in recent years. A more efficient housing stock and local generation will make North Cornwall more resilient to future energy price shocks or interruptions to supply and can take the strain off local energy infrastructure.

Cornwall Wall Insulation: transforming homes and lives

Katy Beach is Operations Manager at Cornwall Wall Insulation, and has seen first-hand how energy efficiency can improve people's lives. "We would be saving people money and, potentially, curing their damp problems, which would have a huge impact on their health. You could feel the difference from the moment you put the boards on."



However, recent cuts to schemes have caused problems for Cornwall Wall Insulation who had to reduce the number of full time staff they employ. Katy said "The GDHIF [Green Deal Home Improvement Fund] was far too complex – a lot of people, especially the elderly, just do not have the IT skills or internet access to be able to apply. I think what we need is a more stable and longer term funding system that is a lot simpler for people to access."

Cornwall Council see multiple benefits from Winter Wellbeing

Anthony Ball is the Winter Wellbeing lead at Cornwall Council. Starting in 2011, Cornwall and



Isles of Scilly Councils and their partners have been bringing together funding and expertise from local government, the NHS and the voluntary and community sectors to develop and run the Winter Wellbeing scheme. Funding from Cornwall and Isles of Scilly Councils, Inclusion Cornwall, the Department of Health and local charities supports the provision of energy efficiency advice and help for those at risk from cold homes through the annual Winter Wellbeing campaign. Anthony said that warm homes were vital to Cornwall's economy as well as its residents' health: "One resident said she was able to complete her CV, start applying for jobs and is now in work as she wasn't constantly cold and stressed anymore." In addition, he sees energy efficiency as an important tool for supporting the local economy as the money saved is likely to be spent in local shops and businesses."

Untapped potential

Whilst a promising start has been made to modernise heating systems and insulation in North Cornwall, there are huge opportunities still remaining and many households that have yet to benefit.

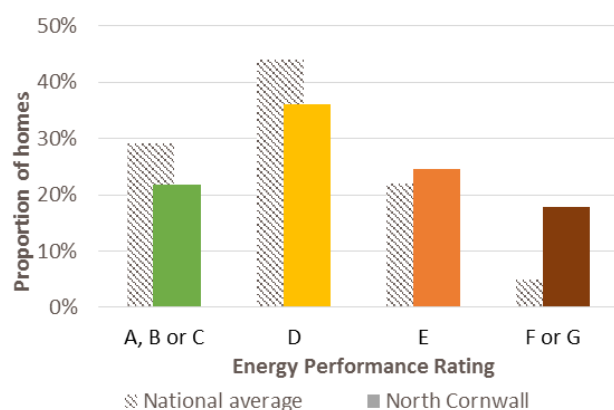
Detailed surveys of 1,271 homes representing the South West's housing stock were conducted as part of a nationwide housing survey. Surveyors identified a range of opportunities to improve energy efficiency in the homes they visited.

Table 3: Estimated number of homes in North Cornwall that could benefit from basic energy efficiency measures based on survey sample⁹

	On mains gas	Off mains gas
Could improve the level of insulation in their lofts	3,700	5,700
Could benefit from cavity wall insulation	4,700	5,400
Could benefit from solid wall insulation	4,400	5,500
Could improve the efficiency of their heating systems	7,900	16,800

Despite the significant potential, local charities and installers have found that changes to national energy efficiency schemes in the last few years have meant that funding for low income households is harder to get hold of and support for making costlier upgrades is no longer available.

Figure 1: Energy performance rating of homes in North Cornwall compared to national average

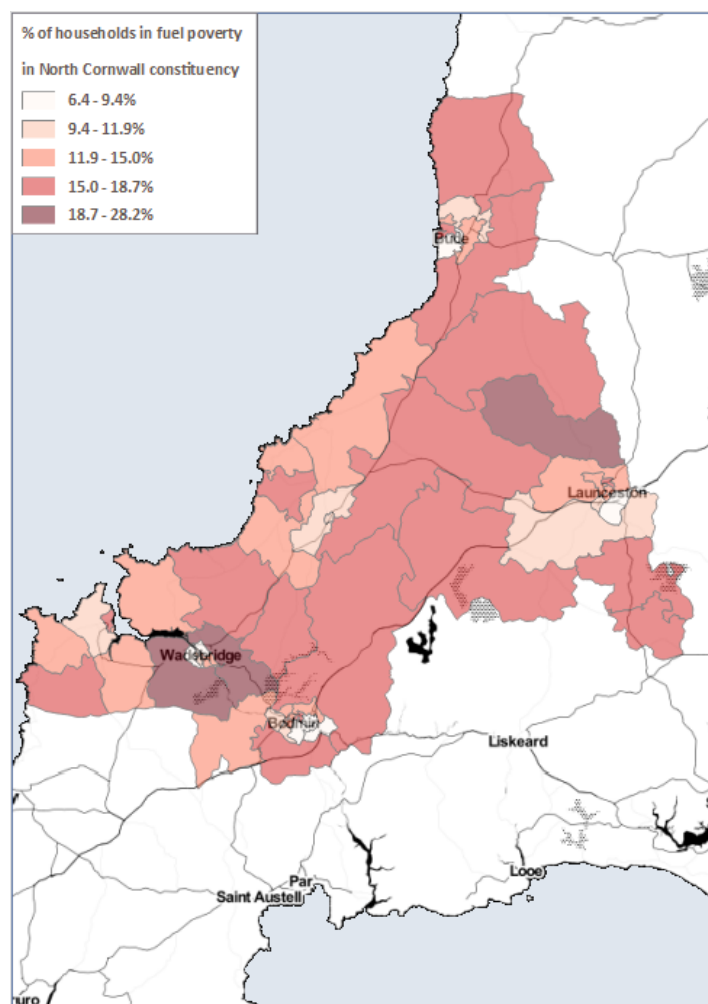


Looking to the future, current national policy commitments would see just 300 homes receive low cost improvements in North Cornwall each year and those in need of more significant works, common in rural areas, would miss out altogether¹⁰.

There are 31,000 homes in North Cornwall with an Energy Performance Rating of D or worse that could benefit from improved efficiency. 7,000 of these have the very worst ratings of F or G and are likely to be in urgent need of attention².

Upgrading the energy efficiency of these homes would present a huge opportunity to cut bills, improve residents' health and well-being and boost the local economy. To make this happen, action is needed both locally and nationally.

Figure 2: Map showing severity of fuel poverty in the area. Homes in the darkly shaded areas are more likely to find keeping their homes warm unaffordable. High resolution data can be used to identify opportunities and target those in need³



With thanks to

- Dr Tim Jones, Chief Executive, and Laura Tregonning, Communications Manager at Community Energy Plus
www.cep.org.uk
- Katy Beach, Operations Manager at Cornwall Wall Insulation
www.cornwallwallinsulation.co.uk
- Anthony Ball, Tackling Inequalities and Winter Wellness Lead at Cornwall Council and Council of the Isles of Scilly
www.cornwall.gov.uk/winterwellbeing

More to explore

- Nearest Super Home is Cottage Farm in Jacobstow
www.superhomes.org.uk/superhomes/cottage-farm-jacobstow
- Nearest certified Passive House is on Ford Close, St Ives
www.passivhausbuildings.org.uk/viewproject.php?id=377
- Wadebridge Renewable Energy Network
www.wren.uk.com



Notes

¹ Based on an average electricity bill in North Cornwall of £814 and on-gas properties spending an additional £556 per year on gas. These estimates are based on 2015 DECC lower super output area (LSOA) [domestic gas](#) and [electricity consumption data](#) and fuel tariffs from 2015 DECC [regional fuel price data](#). Off-gas residents assumed to spend an additional £1,704 on oil annually, the national average expenditure for oil-heated properties from the DECC [Living Cost & Food Survey](#)

² 2015 DECC LSOA-level [household energy efficiency ratings data](#)

³ 2015 DECC constituency and LSOA level [fuel poverty data](#)

⁴ Delivery of measures 2005-2012 derived from a sample of [4,809 homes in the South West](#), adjusted to reflect the number of off-gas properties in the North Cornwall constituency. Delivery of measures after 2012 based constituency level 2015 DECC [GD & Energy Company Obligation \(ECO\)](#)

⁵ 2015 DECC [Feed-in Tariff \(FiT\)](#) and [Renewable Heat Incentive \(RHI\)](#) statistics

⁶ Derived estimate based on average bill data (described in end note 1) with household number data from 2015 DECC [meter data](#) and [regional statistics](#)

⁷ Verco & Cambridge Econometrics, 2012, [Jobs, growth and warmer homes](#)

⁸ Department of Health, 2009, [On the state of public health: Annual report of the Chief Medical Officer 2009](#)

⁹ Estimate is based on surveys of 1,271 south west homes, adjusted to reflect the number of off-gas properties in the North Cornwall constituency. Survey data part of the 2015 DCLG [English Housing Survey](#)

¹⁰ Based on North Cornwall constituency receiving a fair share of the [Autumn Statement pledge](#) to deliver low cost energy efficiency measures to 200,000 homes each year during this Parliament

¹¹ 2015 DECC [domestic energy price statistics](#)