

The Home Age



It's time to put homes at the heart of the energy transition.



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Making energy cheaper for UK homes is a major national challenge that everyone, from the public to the corridors of power, accepts requires an urgent solution.

80% of UK adults consider gas and electricity as significant contributors to the running costs of their home¹ and, as another winter approaches, millions of households – especially the most vulnerable – will once again be anxious about the months to come.

The Home Age report combines data and learnings from across E.ON UK's ("E.ON") partnerships with local councils, public opinion polling and bespoke economic analysis. Over the coming pages we outline practical, immediate steps that central and local government decision makers can take to lower energy bills in the short term, but with a lasting long-term impact.

Shifting to a long-term support mindset

We can only meaningfully provide the scale of support needed across the UK, especially for the homes that most urgently require it, if we flip our mindset on what that support itself needs to look like.

The mission of this report is to argue that providing people with the security of cheaper, greener energy lies in changing the status quo of how we approach energy investment at a national level.

Our national investment in energy infrastructure through generation projects such as new wind or solar farms will, of course, progress decarbonisation and have a positive impact on energy security.

Yet the impact of renewable power generation on bringing down prices for UK homes will not happen straight away. Before 2030, these projects will do very little to help households with the cost of energy.

Therefore, we believe there is an acute need for government to support people now and in the medium term so that they can afford the energy necessary to heat their homes.

It is E.ON's position that this will only come through much higher levels of direct investment in communities and homes.

The power of homes that manage energy more efficiently

83% of UK adults think the government should do more to upgrade the energy efficiency of UK homes².

The fastest way to cut bills for people in the UK is to invest in making their homes use and manage energy more efficiently. This means increasing the quality of insulation in old buildings, putting more solar on rooftops and installing smart power management systems, such as batteries, that can more cost effectively store and deploy energy when demand on the grid is lower.

As well as lower energy costs for the bill payer, homes with such technologies bring benefits for the whole of the UK's energy system by reducing the level of peak demand.

It is estimated that rolling out home battery storage systems among the UK's housing stock (not including flats) could result in a reduction in national energy consumption amounting to more than 3,000 GWh a year³. That is roughly equivalent to the annual power consumption of all households in Greater London.

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A blueprint to scale from

E.ON Next and nPower Business Solutions are simultaneously tackling the symptoms and causes of energy affordability throughout the UK. In Coventry, E.ON Next has led a battery pilot for local households where eligible customers have been offered a comprehensive package of support to resolve existing debt, while tackling some of the root causes of their high energy use.

The solutions required vary by household; some have benefited from improved home insulation, others from more efficient white goods. We're also installing various green home solutions including solar panels, heat pumps and batteries, which will reduce energy usage for years to come. These homes are seeing lower bills and reducing their demand on the national grid.

E.ON Next's work in Coventry is the proof of concept and blueprint that must be adopted across the country.

Let's work together to make a real difference

Our vision for the UK's energy future is consumer-first: a landscape where people, especially the most vulnerable, are prioritised for investment and supported to be put back in confident control of their energy use.

What we need now is for government and other energy companies to join us by taking action to create a UK energy system that people really feel is working, through lower bills and greater security on a long-term basis.

If we succeed in this mission, we will transform the national attitude towards energy from one of anxiety and financial stress to that of excitement and opportunity for the future.



The home in British life.

The concept of 'home' transcends bricks and mortar. To most people, home is warmth, safety and sanctuary from the stress or pressures of the outside world. Homes are spaces we attach to emotionally, forming a key part of our identity and sense of belonging. It is why many people are so prepared to invest in them.

UK homes account for around 20% of our national carbon emissions⁴. No great surprise given the UK has some of the oldest housing stock in Europe and around 8 million homes are rated EPC D or worse. In contrast, more than 9 in 10 (93%) of UK adults want to improve their home energy efficiency⁵, and over 4 in 5 (83%) think Government should do more to upgrade the energy efficiency of homes⁶.

The primary motivators for improving a home's energy efficiency are the reduction of energy bills (80%), increased comfort (54%), and health benefits (52%), such as avoiding illnesses associated with cold weather and draughts.

Yet the cost of these improvements remains a major barrier. 60% of people cite upfront payments and payback timeframes as obstacles⁷; a concern which is especially pronounced among those aged between 55 and 64 (67%). However, an encouraging three quarters (75%) of all UK adults would pursue energy efficiency upgrades if they were more affordable⁸.

These findings make clear that the time to focus national investment on people's homes is now. In doing so, we can further reduce our national carbon emissions and accelerate our transition to a greener economy, while meeting an overwhelming national desire for homes that deliver higher energy efficiency, greater comfort and lower energy costs.



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Coventry: a blueprint for the home age.



E.ON's 15-year strategic energy partnership with Coventry City Council offers unequivocal proof of concept for more direct investment in people's homes. It is also a testament to the power of collaboration in tackling one of the West Midlands' most pressing issues: fuel poverty.

The project strategically targets a diverse range of resident profiles, from vulnerable families and elderly residents, to resourceful millennials and stable retirees. Its approach is, however, consistent in ensuring that each household receives tailored assistance with the energy efficiency measures that will have the most impact and return on investment.

The pilot scheme uniquely combines immediate and long-term strategies to combat energy affordability. Short-term relief is provided through direct financial support and debt write-offs, offering immediate respite to those burdened by high energy costs. However, the real innovation lies in the long-term solutions that aim to tackle the root causes of energy inefficiency. This includes comprehensive home upgrades such as batteries, enhanced insulation, the installation of energy efficient white goods, and the integration of renewable energy technologies like solar panels and heat pumps.

In addition, central to the Coventry pilot is the implementation of battery storage systems paired with a time-of-use (TOU) tariff. This combination allows households to store cheaper off-peak electricity by charging their battery

during hours when power is cheaper. They can then use it during peak demand times, significantly reducing energy bills.

According to customer smart meter data, the batteries alone can save on average around £255 annually⁹.

The pilot also incorporates cutting-edge innovations from partners like Kestrix, a technology company that analyses thermal images of buildings to assess heat loss and generate energy efficiency retrofit plans. These technologies are pivotal to advancing and measuring the efficiency and suitability of home energy systems. A partnership-based approach not only provides faster financial relief but also equips residents with sustainable solutions that enhance energy independence and resilience specific to their needs.

This real-world, impactful example of direct investment into Coventry homes demonstrates that using data to target those customers most in need can transform energy consumption and affordability at scale if applied nationwide.

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Economic impact of a national roll-out.

The success of the Coventry pilot presents a clear case for its national roll-out and the potential benefits both to households and the wider economy can be illustrated through various scenarios.

Average energy cost savings for households that took part in the pilot amounted to £255 on an annualised basis. These were properties that had battery storage installed in their homes, enabling them to charge and store cheaper off-peak electricity for use during the day. For some homes, installation of additional insulation, solar, heat pump or others systems could more than double these savings.

UK wide replication / roll-out

It is estimated that, by replicating the approach of the Coventry pilot in all UK homes (excluding flats), an annual reduction in energy consumption could amount to 3,174 GWh.

Targeting fuel poverty

Around 13% of this reduction in energy usage could occur among households that currently experience fuel poverty (i.e., 408 GWh per annum). If this were the case, in monetary savings this would reach up to £5.45 billion per annum, with households currently in fuel poverty standing to save £753 million.

Batteries in one million homes

If we were able to install similar battery and TOU efficiencies into one million homes, we could create national energy bill savings of around £255 million each year. Over a 20-year horizon, this equates to over £5 billion.

Applying learnings from the pilot across the country would re-shape the economic landscape for countless homes and their surrounding communities.



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3,174 GWh could power:¹²

1,175,555

average UK households for a year,
or all households in Greater London

festive lights
for every UK
household's
decorations for

113
years

the production of

5.28M

tonnes of steel,
about 75% of the UK's
annual steel output

9.52M

annual EV charges

211.6B

smartphone batteries

the London
Underground for

2.67 years

floodlights for

1.06M

Premier League matches

boiling
water for

15.87B cups of tea

the annual electricity
use of a city like
Leicester

3B

washing machine
laundry loads

Saving spotlight:

Medically dependent households would save more

Medically dependent households often face higher energy consumption due to essential medical equipment needs, using about 30% more energy than the national average.

The Coventry pilot project suggests that these households could save more annually on their energy bills with the installation of home batteries. In some instances, the savings could be very substantial, with one household achieving an estimated saving of over £600 per year.



Saving spotlight:

Larger families £415 p.a.

Larger families generally experience increased energy demands, consuming around twice the energy of an average household due to activities like laundry and showering. Using data from the Coventry pilot, we estimate that these families could save £415 annually by installing home battery systems and moving to a TOU tariff, providing significant financial relief and promoting more efficient energy use.



Potential economic stimulus

The installation of home batteries across suitable UK housing stock presents a substantial opportunity for economic stimulus, particularly through increased household spending power. While households in fuel poverty are more likely to use their energy cost savings to fund additional energy use, those not in fuel poverty could channel these savings into broader economic activities.

For households outside of fuel poverty, the analysis assumes battery installation costs of £3,000¹³, with households covering 25% of this upfront cost over ten years. Around 11% of energy savings are expected to be directed towards savings and investment, based on national trends, leaving the remainder available for additional household spending.

This additional consumption is projected to significantly boost economic output. For each £1 million saved through energy cost reductions, an estimated £186,000 in Gross Value Added (GVA) is expected, along with the creation of nine jobs. If home batteries were installed across all eligible non-fuel-poor UK households, the potential additional consumption stimulus could reach £2.84 billion annually¹⁴.

This economic activity could generate up to £1.01 billion in annual GVA and create approximately 49,800 new jobs, highlighting the transformative economic potential of widespread home battery adoption. These figures illustrate the broader economic benefits of energy efficiency beyond direct household savings, supporting both economic growth and job creation across the UK.



Unlocking the home age.

Policy recommendations.

01 Invest in flexibility for 250,000 vulnerable households

We are calling on Government support to enable large-scale battery installations across the UK's most fuel-poor households. Based on our proven delivery capacity, E.ON Next can install 15,000 batteries per year. With funding of around £100 million over the next three years, we can directly support 45,000 households, reducing their bills, helping them to heat their homes more affordably and protecting them from price volatility. Funding for the sector would amount to £600m and could serve over 250,000 households, giving vulnerable customers consistent support nationwide. This targeted approach will maximise social impact while demonstrating the role of residential flexibility in achieving net zero.

02 Enable smarter use of data to establish which homes are most in need

Effective targeting of support relies on better data sharing between government departments and suppliers. Policy changes to allow the Department for Work and Pensions (DWP) and His Majesty's Revenue and Customs (HMRC) to securely share relevant information with trusted energy providers, such as E.ON, would make it far easier to identify and assist customers at risk of fuel poverty. This would reduce administrative barriers, cut duplication, and ensure help reaches those who need it most.

03 Enable access to a range of green finance options for other households

Households that are not eligible for fully funded measures will need to pay at least part of the upfront costs themselves. However, these costs can be prohibitive for many households. Ensuring access to a wide range of low interest green finance products to cater for different household budgets and circumstances will therefore be essential. These include innovative heat or energy-as-a-service propositions which allow the household to pay back the cost of the installation over an extended period of time. Availability of green finance will facilitate uptake alongside other actions to drive demand such as removing legacy policy costs from electricity bills to reduce the disparity with gas and make switching to low carbon heating more appealing to households.

Taken together, these steps would deliver immediate relief for vulnerable households while laying the foundations for a nationwide transition to residential flexibility. It is paramount that Government and other energy providers collaborate with us to establish a UK energy system that genuinely benefits people, characterised by reduced costs and enhanced long-term stability.

References.

- ^{1,2} Nationally representative Savanta survey of 2,108 UK adults in August 2025
- ³ Independent analysis by Development Economics, based on real world data from E.ON Coventry battery installations
- ⁴ <https://commonslibrary.parliament.uk/research-briefings/cbp-8830/>
- ^{5,6,7,8} Nationally representative Savanta survey of 2,108 UK adults in August 2025
- ⁹ E.ON owned data based on real world results of Coventry battery installations
- ^{10,11} Independent analysis by Development Economics, based on real world data from E.ON Coventry battery installations
- ¹² Based on publicly available statistics on power consumption averages of listed activities
- ¹³ Based on E.ON owned data and pricing for home battery solutions
- ¹⁴ Independent analysis by Development Economics, based on real world data from E.ON Coventry battery installations



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