Chartered Institute of Housing

# What you need to know about the Energy Act 2023

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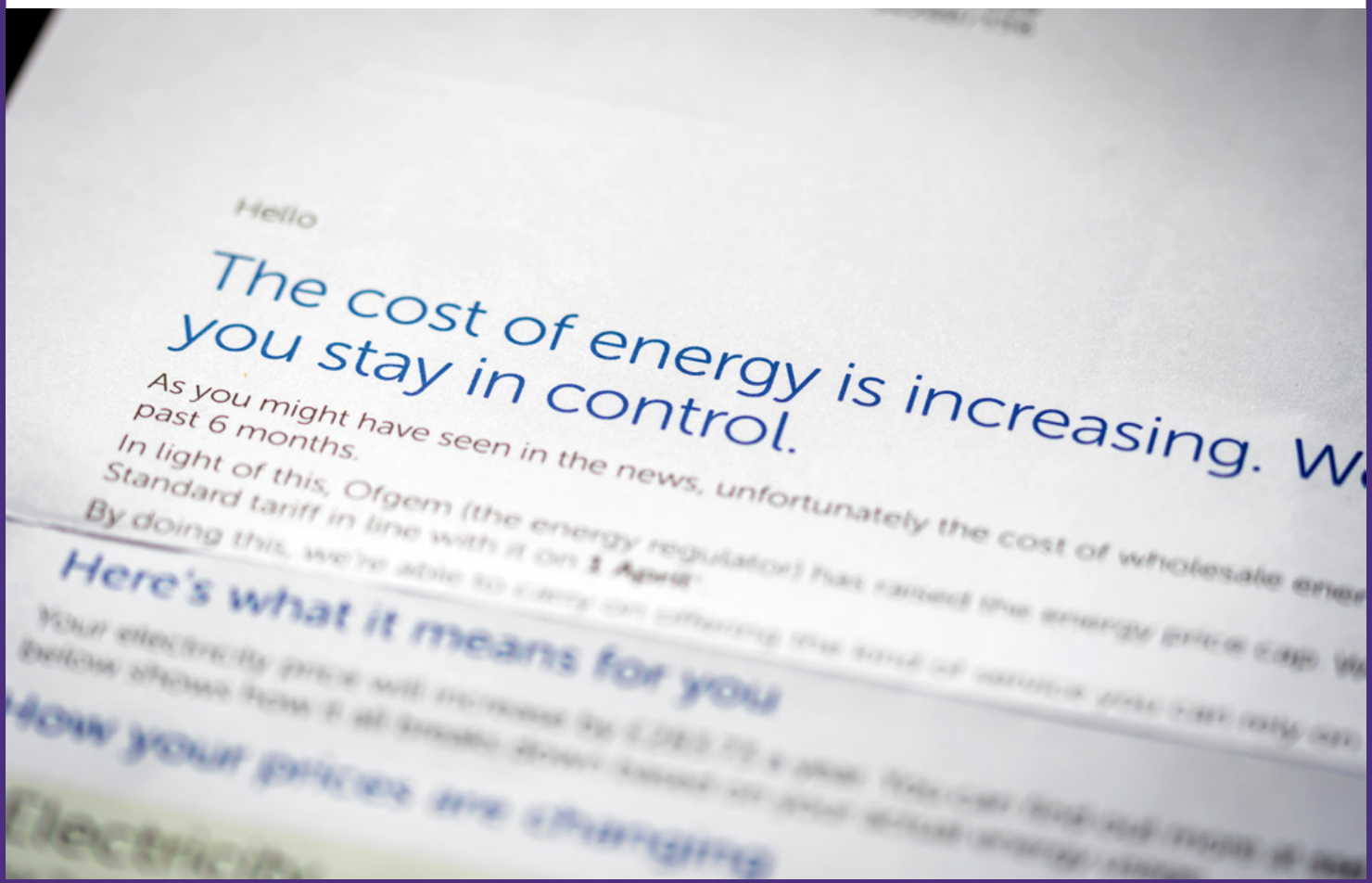
On 26 October 2023, the Energy Bill became law as the Energy Act 2023. The Energy Act is the largest piece of primary legislation on energy in several years, and has the stated aim of transforming the UK's energy system "by strengthening energy security, supporting the delivery of net zero and ensuring household bills are affordable in the long-term."

Much of the Energy Act is concerned with accelerating the growth of renewable energy technologies and supporting embryonic sectors, such as hydrogen and carbon capture usage and storage (CCUS), to continue to grow. A significant section of the Act also relates to nuclear power and contains provisions to remove potential barriers to future investment. Much of this is tangential to the day-to-day operations of housing associations, local authorities, and other housing organisations.

However, there are parts of the Act which will have a considerable impact on housing. This briefing exclusive for CIH members summarises the most important parts of the Act and what they mean for housing professionals. It also shares links to other government documents and other sources of further information.

Although structured differently in the Energy Act itself, the summaries that follow are split into four themes. These are:

1) Paving the way for the future of heat
2) Energy efficiency
3) Smart metering and technologies
4) Ofgem and the Independent System Operator and Planner.



# Paving the way for the future of heat

There are three main heating technologies that will dominate in the future, although the eventual proportions of each in the UK's heating mix are still uncertain. These are heat pumps, heat networks, and hydrogen. The UK Government's Climate Change Committee expects heat pumps to be the main type of heating technology in 2050. Heat networks are expected to provide one fifth of domestic heat by the same year, and while the role of hydrogen is more contested, it is not expected to play any more than a niche role in the future. The Energy Act contains provisions relating to all three types of technology.

## Heat networks

There are over 14,000 heat networks in the UK, providing heating and hot water to approximately 480,000 people. Despite this, most heat networks have never been subject to regulation. The Energy Act contains two important provisions relating to heat networks.

Firstly, the Energy Act (Part 8, Chapter 1) introduces a regulatory framework that will make Ofgem the regulator of heat networks in Great Britain. The government intends heat network regulation to begin in spring 2025. By then, all existing heat networks will have to comply with Ofgem's regulatory requirements, and new heat networks will not be able to come online until they are compliant.

The government and Ofgem have already taken the first step in devising the regulatory framework for heat networks by consulting on its design in autumn 2023. Their proposals, which CIH have responded to, introduce an overarching Standards of Conduct which all heat network operators will be required to comply with.

The consultation also introduces provisions relating to fair pricing, quality of service, customer vulnerability, and metering. These will be implemented in a phased way, with basic compliance expected in the first year of regulation and full compliance expected from 2026 onwards.

Secondly, the Energy Act (Part 8, Chapter 2) introduces powers for government to implement heat network zoning in England. This will essentially give the government powers to work with local government to devise a methodology to decide where heat networks will be deployed in the future.

Some local areas are well suited to be connected to heat networks, because (for example) they are close to industrial heat sources and/or have a high density of homes. According to government, heat network zoning "involves central and local government working together with industry and local stakeholders to identify and designate areas within which heat networks are the lowest cost solution for decarbonising heat." The government states there will be two advantages of implementing zoning:

- By identifying where heat networks are cost-effective solutions to heat decarbonisation, zoning will provide local stakeholders with clarity and confidence as to where heat networks should be located.
- Knowing that certain types of building within a heat network zone will connect to a district heat network and use the heat provided, provided it is cost-effective to do so, gives project sponsors and investors greater assurance which helps support delivery of viable, large-scale heat networks.

The Energy Act includes provisions for the government to develop a nationwide methodology for identifying and designating areas as heat network zones, and to establish a zoning coordinator role, to be occupied by local authorities. It also includes provisions for heat networks to meet certain low-carbon requirements and for certain buildings to connect to a heat network in a zone within a specific timeframe. In other words, households and businesses within a specific zone will, with few exceptions, be legally required to connect to their local network.

# CIH's view

Together, these two changes represent a welcome but significant shift in heat network law and regulation. They are especially relevant for social housing providers. Research shows that one in 12 social housing residents are part of a heat network, compared to one in 25 households nationally. Social housing organisations manage around two thirds of all heat networks, but most of these networks are run on a not-for-profit or cost recovery basis, and heat network teams within social housing organisations tend to be small, with relatively low budgets and staff resource. There will also be a substantial impact on development, and at this stage it is not clear precisely how new homes built within heat network zones will be regulated.

CIH has been collaborating with other housing organisations (the National Housing Federation, the Local Government Association, the National Housing Maintenance Forum and The Heat Network) to shape and understand the new regulations, and we will continue to share information with members as they develop.

## Heat pumps and hydrogen

The Energy Act contains two main provisions relating to heat pumps and hydrogen.

Firstly, the Act (Part 4, Chapter 1) gives the government power to introduce new low-carbon heat schemes. Although not explicitly named as such in the Act, government has been working for several years on the design and introduction of a policy called the Clean Heat Market Mechanism (CHMM). The CHMM will place obligations on the manufacturers of fossil fuel heating appliances (e.g. gas boilers) to achieve a certain number of low-carbon heat pump sales as a proportion of their overall heating appliance sales.

Manufacturers will be able to meet their obligations either by the manufacture and sale of their own heat pumps, or by purchasing 'credits' from other heat pump manufacturers (or a mix of both). The aim of the CHMM is to work in tandem with other current or proposed government policies (e.g. the Boiler Upgrade Scheme, or the rebalancing of levies on gas and electricity) to grow the heat pump market.

Secondly, the Act (Part 4, Chapter 2) gives the government formal powers to run a hydrogen grid conversion trial and enhance consumer protection in the chosen trial area.

Converting the existing gas network to distribute hydrogen is one option for decarbonising homes connected to the gas grid. The Climate Change Committee, as well as several other studies, suggest that hydrogen will have a relatively small role to play in decarbonising heating. Hydrogen for heat is more likely to be used on a localised basis in places where the production and transportation of hydrogen for industry is concentrated.

Although the final location of the trial is not yet known, it will allow government to gather evidence on the process of conversion ahead of a strategic decision on the future of the gas network in 2026.

# CIH's view

Both provisions will have an impact on housing organisations, especially in the realm of asset management. The heating and hot water industry have expressed concern about the CHMM, and there is some evidence that boiler manufacturers are planning to increase the prices of domestic gas boilers to offset the added cost of meeting the obligations. CIH responded positively to a previous consultation on the design of the CHMM, and the Climate Change Committee has underlined its importance for growing the heat pump market and transitioning away from fossil fuel heating.

However, we need to see government accelerating its efforts to improve the affordability of electricity for households if the heat pump market is to truly take off. Meanwhile, the lack of certainty on the future of the gas network continues to be an issue, and CIH is aware that some social landlords are deferring investment decisions until they have clarity on the government's intentions. CIH would welcome timely clarification and direction from the government on the gas network and how they will ensure all households, especially in social housing, will be able to afford the upfront costs and running costs of heat pumps.

# Energy efficiency

Although it is named the Energy Act, there is precious little in the Act on energy efficiency. Two main provisions are introduced of relevance to housing organisations.

Firstly, the Act (Part 7) introduces changes to how energy company obligations can be met. Although not stated explicitly in the Act, this relates to the Energy Company Obligation (ECO), the government's flagship energy efficiency scheme, now in its fourth iteration (ECO4). ECO places an obligation on energy retail suppliers to deliver a certain number of energy efficiency upgrades to predominantly low-income households.

However, smaller energy suppliers (>150,000 customers) have historically been exempt from delivering ECO because fulfilling it would have involved unsustainable administration and delivery costs. The Act will therefore enable the government to include smaller suppliers within ECO through a 'buy out' mechanism, whereby smaller suppliers will pay into a central pot.

Measures will be funded and delivered from this pot, enabling smaller suppliers to meet their obligations without having to administer and deliver ECO directly. This will enable a small, but nonetheless welcome, addition to the number of measures delivered through ECO4.

Secondly, the Act (Part 10) introduces formal powers for the government and devolved nations to modify and improve Energy Performance Certificates (EPCs).

EPCs provide people and organisations with information about the energy performance of their homes, and currently make recommendations on the improvements that could be made to enhance their energy efficiency.

However, the limitations with EPCs have been well documented, and it is widely recognised that they need reform or replacement. The Act includes different provisions relating to EPCs, but the key change is that government now has powers to "change or make regulations dealing with the energy efficiency of premises to ensure that they are fit for purpose and reflect the UK's ambitions on climate change."

Now that the Act has passed, we are expecting a consultation on how this will take place before the end of the year.

# CIH's view

While both provisions are welcome, the Act is more noticeable for what was not included on energy efficiency. Alongside a coalition of partners, CIH advocated for the introduction of tighter minimum energy efficiency standards in the private rented sector through the Energy Act.

In September 2023, the Prime Minister stated that this would be one of several net zero and energy affordability policies not taken forward by the government. As a result, private landlords will not be required to upgrade their properties to EPC Band C by 2028, as was proposed in the government's 2020 consultation on the matter. This will leave private renters paying more for their energy bills and more at risk of the damaging consequences of inefficient homes, such as damp, mould, and fuel poverty. We continue to support improved regulations in the private rented sector to ensure that everyone, irrespective of tenure, can afford to live in a home that is safe, decent, and warm.

## Smart metering and smart technologies

There is growing awareness that the energy system of the future will be flexible and much more sensitive to day-to-day energy demand than it is today. Social landlords have often been at the forefront of experimenting with how flexibility can save residents money on their energy bills and reduce stress on the energy system.

What the government terms 'energy smart appliances' are central to this. The Act (Part 8) defines energy smart appliances as:

> *"an appliance which is capable of adjusting the immediate or future flow of electricity into or out of itself or another appliance in response to a load control signal; and includes any software or other systems which enable or facilitate the adjustment to be made in response to the signal."*

The overarching purpose of these appliances is to support the electricity grid. For example, electricity demand typically spikes between 4pm-7pm (the 'evening peak'), when people return home from work and begin cooking, heating, and using their lights.

This places stress on the electricity grid, and sometimes means that fossil fuel generation must be fired up to meet this demand. Energy smart appliances enable energy-intensive tasks that might otherwise take place at peak times (e.g. washing machine use) to be shifted to times of the day or week when the electricity grid is less stressed.

This has benefits for the electricity network and for maximising the use of renewable electricity in the broader energy mix. It can also have benefits for people, who can be rewarded for shifting by receiving discounts on their energy bills, and for organisations who provide smart services by controlling devices remotely, known as 'load controllers'. Social landlords are increasingly acting as load controllers, for example by installing energy smart appliances in their homes which can, with the resident's consent, be remotely operated.

However, concern has been raised that regulation has not kept up with innovation in energy smart appliances. Cybersecurity concerns are the main target of the Act, and the government has noted that energy smart appliances could be hacked and controlled remotely by malicious actors. The Act (Part 9, Chapter 2) responds to this by giving government the powers to set regulations for energy smart appliances, so that devices meet minimum technical requirements for cybersecurity, interoperability, data privacy, and grid stability. Government will also be able to ensure that electric heating appliances and electric vehicle charge points have smart functionality.

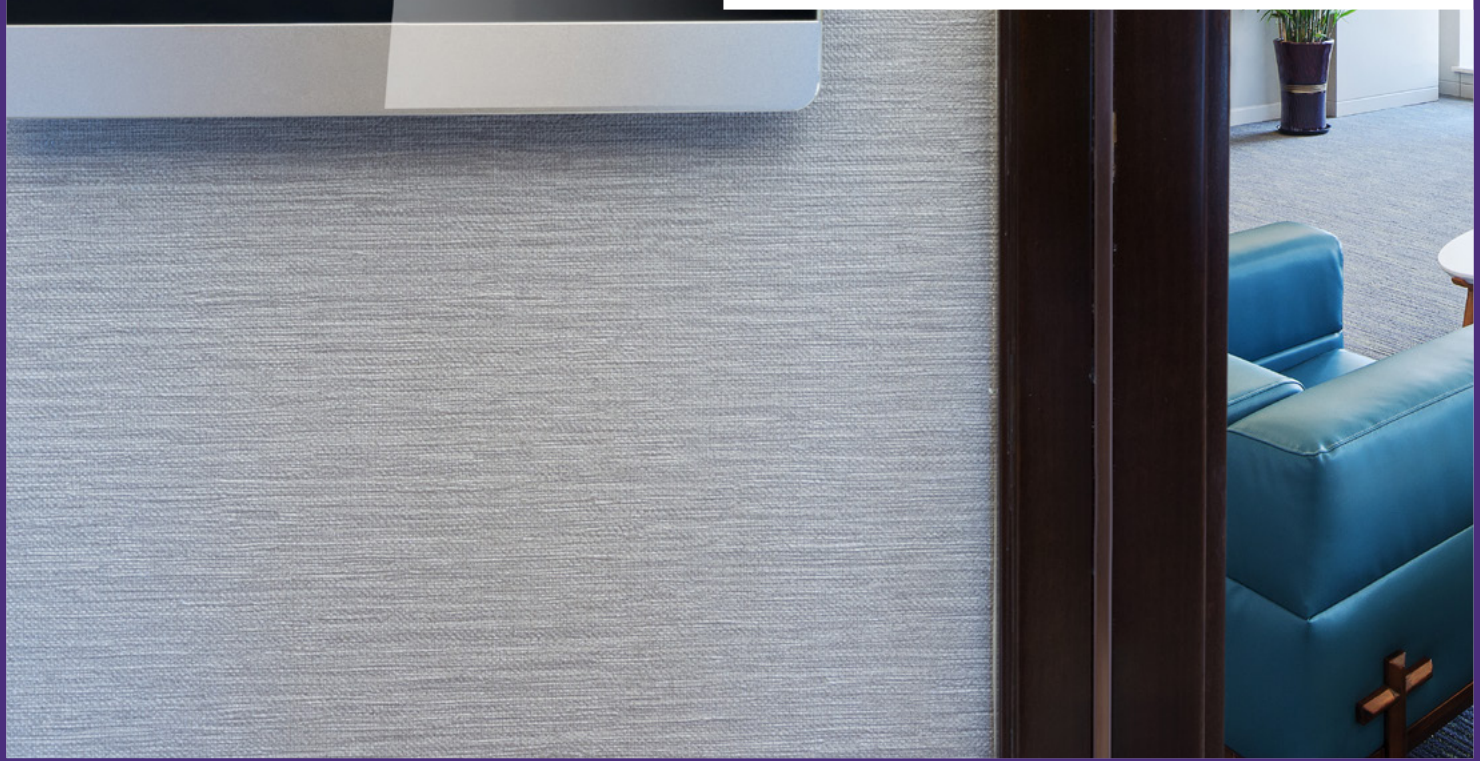
The Act (Part 9, Chapter 3) also gives government powers to essentially license load controllers, with the aim of ensuring that they operate in a way that is beneficial for people and the electricity grid and meet minimum requirements on consumer protection and cybersecurity.

Lastly, a separate part of the Act (Part 7) makes provision for extending the smart meter rollout to 2028. Current powers for the rollout are due to expire in November 2023, and the Act simply extends them for a further five years until November 2028. The Act does not meaningfully change anything else concerning the smart meter rollout.


## CIH's view

A future where washing machines, dishwashers, electric vehicles, and heat pumps turn themselves on and off when the electricity grid wants them to feel very futuristic, but it is closer than we sometimes imagine. Minimum appliance standards will therefore be very welcome, as will the commitment to ensure that load controllers act in the interests of households.

There are at least two implications for social landlords and the wider housing sector. Firstly, housing associations that are or who may soon be load controllers will need to be compliant with any license conditions when they are introduced. Secondly, social landlords installing energy smart appliances in any of their homes will need to understand the ways that people will increasingly use them to shift their energy use. Providing accurate advice and information on using these appliances is important, both for appliances that might be controlled remotely with the household's consent, and those controlled directly by the household.
With energy prices set to stay high for the foreseeable future, supporting residents to change their energy consumption through load shifting may have a small but significant impact on their energy bills.



# Ofgem and the Independent System Operator and Planner

Finally, the Energy Act introduces two strategic changes to the architecture of the UK energy system. Firstly, Ofgem will be required to consider how its decisions will impact on the UK's net zero targets, and secondly, the Act (Part 5) establishes the 'Independent System Operator and Planner', or 'the ISOP'. This has previously been referred to in government work as the 'Future System Operator', or 'FSO'.

In the next thirty years and beyond, the energy networks and infrastructures in the UK need to change dramatically to meet statutory net zero targets.

The ISOP will act as a central organising body that will help to plan the future of the energy networks. As the government states, the ISOP will "bring together the planning for the electricity and gas systems, and potentially systems for new technologies like hydrogen and carbon capture and storage, into a single institution to enhance our ability to transition to a zero-carbon energy system and reduce the costs involved." The ISOP will be an independent public body, much like the Committee on Climate Change, providing advice to government and Ofgem.

## CIH's view

While we need to wait and see how exactly these two changes will impact on the day-to-day interactions between the housing sector and the energy networks, it is welcome to see government's intention to bring more of an overarching strategic direction to the energy system. The energy networks play a critical role in asset management and retrofit, but we know that the services provided by the networks can sometimes be uneven, further complicating already complex home improvement projects.

With Ofgem now required to think through how its decisions impact on net zero, we hope to see greater consideration given to how housing organisations and the networks can work together to deliver energy efficiency upgrades at speed.

# Further information

## General information

The Energy Act 2023

House of Commons Library FAQ on the Energy Bill and households

## Heat networks

Energy Bill factsheet: Heat networks regulation and zoning

Energy Bill contextual note: Heat network zoning and the planning system

Ofgem and DESNZ's proposals for heat network consumer regulation

The Heat Network (a forum to discuss and share good practice about district and communal heating within social housing)

## Heat pumps

Energy Bill factsheet: Low-carbon heat scheme

UK government proposals for the design of the Clean Heat Market Mechanism (CHMM)

## Hydrogen

Energy Bill factsheet: Enabling the Hydrogen Village Trial

More about the Hydrogen Village Trial

Redcar Hydrogen Community (proposed site of the Hydrogen Village Trial)

## Energy efficiency

Energy Bill factsheet: Energy Company Obligation buy-out mechanism

UK government response to ECO4 consultation (p.11-15).

Energy Bill factsheet: Power to make or change energy performance of buildings regulations (energy certificates)

UK government's 2020 report and action plan on energy performance certificates for buildings

UK government's 2021 progress report on energy performance certificates

## Smart technologies

Energy Bill factsheet: Regulation of load control and energy smart appliances

UK government's 2021 Smart Systems and Flexibility Plan

UK government's 2022 response to consultation on the interoperability and cyber security of energy smart appliances and remote load control

Energy Bill factsheet: Smart metering

## Ofgem and the ISOP

Energy bill factsheet: Ofgem net zero duty

Ofgem's response to the net zero duty

Energy bill factsheet: Future System Operator

UK government and Ofgem's response to consultation on the Future System Operator