

A fairer energy system for families and the climate



© Trades Union Congress

Congress House, Great Russell Street, London WC1B 3LS

020 7636 4030 www.tuc.org.uk

For more copies call 020 7467 1294 or email publications@tuc.org.uk

Please ask if you need an accessible format.

Date: July 2022

Cover image by: Getty

Summary

Publicly-owned energy retail companies can deliver fairer bills for households, accelerate the rollout of household retrofits and reduce energy use.

Soaring energy bills are causing untold suffering for low-income households and workers across the UK. The “typical” bill was increased by 54% with Ofgem’s April increase in the energy price cap.¹ Many households have already seen bills go up by over a thousand pounds. Ofgem is expected to increase the electricity and gas price cap again in August by a further 51%, so that average bills pass £3,200.²

But allocating the burden of the gas price crisis to domestic households at this scale is not inevitable. Other European countries have demonstrated that it is possible to insulate many or all households from the fallout of the invasion of Ukraine, Putin’s gas politics and global volatility in terms of energy bills. Our analysis shows that this is because governments in those countries have more levers to intervene in energy pricing – and are more prepared to use the levers that they have. Part of this comes down to questions of who owns and controls our energy system, and whom it serves.

There is widespread recognition that the UK’s energy system is broken.

The costs and burdens of soaring global gas prices have been passed through directly into domestic energy bills – hammering the finances of the poorest households. This adds to already unfair energy pricing mechanisms, where the poorer households pay a disproportionate part of their income for their basic energy needs.

In parallel, the Climate Change Committee has slammed the failure to retrofit our homes as “shocking”, as “installations of insulation remain at rock bottom”.³

Meanwhile, pay and terms and conditions for workers in energy retail have been eroded and become increasingly precarious. Employers reacted to lower profits by suppressing staff pay, transferring the burden of poor market design onto their workers. Workers in energy retail firms have seen their real-terms wages suppressed by about £1,000 between 2019-2021, with firms passing through shrinking profits to suppress staff pay.⁴

The TUC has developed a set of proposals to reform the UK’s energy system, that can

- Protect all low-income households with fairer bills and a social tariff

¹ [Price cap to increase by £693 from April | Ofgem](#)

² <https://www.cornwall-insight.com/default-tariff-cap-forecast-climbs-further-as-ofgem-announcement-looms/>

³ [Current programmes will not deliver Net Zero - Climate Change Committee \(theccc.org.uk\)](#)

⁴ Prospect (2021) *Fixing the UK’s broken energy retail market: a Prospect Discussion Paper*

- Deliver lower bills and a faster climate transition through the rapid rollout of fully-funded home energy efficiency retrofits
- Ensure that energy is a public good and that energy retail is both democratically accountable and transparent

The TUC is proposing a pragmatic reshaping of the UK's energy system, to be more in line with our European neighbours that are finding it easier to weather the current crisis:

- Take the Big 5 energy retailers and other failing retailers into public ownership, at a similar cost (under £2.85bn) to what Government already spent on keeping failed energy supplier Bulb in business;
- Task publicly-owned energy providers with offering a social tariff capped at 5% of income for low-income households;
- Recognise that energy is a common good: restructure tariffs to provide all households with an initial free energy allowance, and increase the cost per unit for high-consumption households;

This is the first of a series of TUC papers on reforming our energy system. Future papers will explore questions around public equity stakes in new clean generation and the need for improved regulation of energy networks to deliver climate action and social justice.

This paper is in two parts. Part 1 sets out the current problems in the energy system, and the role that public ownership of energy retail could play alongside other interventions in addressing them. Part 2 sets out more detail about how public ownership could work, including costings and policy levers.

Section One

Our failed energy system - and how public ownership of energy retail can help

The wholesale cost of gas and electricity has soared in recent months. This stems from a combination of skyrocketing global gas prices due to Russia's shrinking of exports, supply chain disruptions, and the energy trading system that pegs bills to the most expensive energy source. The UK's inability to cushion the blow to households and businesses reveals a set of failures:

- to protect the most vulnerable,
- to lower bills through energy efficiency,
- to keep profiteering in check.

Here we detail how expanding public ownership of energy retail can help fix these failures.

Soaring Energy Bills

The Failure

Soaring energy bills hit the poorest households the hardest. The private market has consistently failed to protect the poorest and most vulnerable from fuel poverty.

The proportion of total household expenditure spent on electricity and gas has soared for the poorest households, from 5.5% in 2005 to 8.5% in winter 2021. The Resolution Foundation forecast that by Spring 2022, energy expenditure by the poorest households would hit 12% of total spending, as fuel bills rise, real wages fall, and welfare benefits are cut.⁵ By autumn 2022 it will be far higher yet.

Bills have primarily increased due to the soaring wholesale price of gas. In addition, households have had to pay a penalty of £68 to cover 'Supplier of Last Resort' costs faced by suppliers who have taken on customers from the many smaller retail companies that have gone out of business in the past year.⁶ This is loaded into the standing charge – the daily charge of around 44p per day, regardless of how much energy a household uses. Levies loaded onto our bills tend to be regressive.

⁵ [The Year of the Squeeze • Resolution Foundation](#)

⁶ [CBP-9428.pdf \(parliament.uk\)](#)

Currently, the less energy a household uses, the more they pay per unit – as a result of the standing charge. This perverse system incentivises waste and hurts the people who can least afford it.

The profitability of the Big 5 historically relied heavily on a 'loyalty penalty', where customers who stayed with the same supplier year to year and never switch paid higher prices – the Standard Variable Tariff. This meant that the majority of households – including many of the most vulnerable and older households who did not switch suppliers regularly - overpaid for their energy.

This base of 'loyal' customers cross-subsidised new customers enticed in with cheaper starting deals. New retail entrants (many of whom have operated with weak balance sheets and poor management) tried to build market share by undercutting the incumbents, usually by offering energy tariffs at a loss and relying on customer credit balances to provide working capital.⁷

Energy retail has swung between two extremes: an oligopoly of the Big Six with excessive profits and mistreatment of consumers, or over-crowded and loss-making with no margins. The market design means energy retailers have failed to prioritise energy efficiency and reducing people's bills, and focused on profits. It is not at all clear that a privatised, profit-seeking market structure can find a stable balance between these two extremes.

The Solutions

A right to energy

There is widespread public support to restructure tariffs to guarantee access to basic energy needs to all households. This could be ensured by providing a free band of energy to every household to cover basic lighting, heating and cooking needs like keeping the lights on, keeping warm, and running a fridge.

This would be paid for by charging for energy used beyond a certain high-usage threshold at a significantly higher rate, so that very profligate energy users pay more per unit.

Restructuring our bills to reduce the per unit cost for low energy users and increase it for high energy users could end fuel poverty for millions, incentivise energy efficiency and reducing waste.

Alongside this, the regressive Standing Charge should be abolished, to avoid penalising low-income households – many on pre payment meters. At a minimum, additional regressive levies such as the 'Supplier of last Resort' costs should not be loaded onto the Standing Charge.

⁷ [Market Meltdown: How regulatory failures landed us with a multi-billion pound bill - Citizens Advice](#)

Transforming bills along these lines has widespread support - three quarters of the population support the right to free energy to meet people's basic needs. Only 10% opposed it.⁸

A Social Tariff

In addition, publicly-owned retail companies should provide a social tariff, where lower-income households can access a cheaper energy tariff.

Over the years, average expenditure on energy across all households has rarely risen above 5% of household spending, while the poorest households have consistently spent a larger proportion of their overall income on electricity and gas, passing 12% in spring 2022.

A social tariff could cap electricity and gas bills for low-income households at 5% of household income, ensuring that meeting energy needs is similarly affordable for all households.⁴ Eligibility could be based on existing mechanisms such as Universal Credit.

There are a range of mechanisms for paying for a social tariff – by targeting the low costs of offshore wind CfDs towards a social tariff, through cross-subsidy within publicly-owned energy retail companies, from government funds, or through higher bills for high-income households. Some of these options are most effective if a social tariff is introduced across the energy sector for all energy suppliers.

Such a measure was recommended by some large energy companies, before the gas price crisis.⁹

Energy Efficiency

The Failure

Home retrofits have moved at a glacial pace despite the climate emergency, failing to make a dent in energy demand. In June 2022, the Climate Change Committee (CCC) slammed the government's failure to retrofit our homes as "shocking" as "installations of insulation remain at rock bottom".¹⁰ Insulation rates dropped by 90% over the last ten years, with thousands of jobs lost.

This has lost the UK a decade of potential progress on decarbonising buildings, and leaves the task of decarbonising by 2030 all the more challenging.

⁸ The poll was conducted by ICM, with a representative sample of 2000 British adults, 10th – 12th June 2022. [Press Release: 75% support the right to free energy to meet basic needs – Fuel Poverty Action](#)

⁹ [Calls for social tariff on UK energy bills as rises push extra half million homes into fuel poverty | Fuel poverty | The Guardian](#)

¹⁰ [Current programmes will not deliver Net Zero - Climate Change Committee \(theccc.org.uk\)](#)

It also leaves the UK more susceptible to price volatility and external manipulation, and households consuming more energy to stay warm, with far higher bills.

The challenge of developing an expanded and skilled workforce to assess, persuade, organise and deliver the in-home improvements required to address decarbonisation, from basic insulation to smart meters and solar panels, is massive.¹¹ Few institutions have the capacity or the incentive to plan, commit or recruit at the pace required to scale up energy efficiency retrofits to hit our climate targets. The construction sector targeting households is fragmented, dominated by self-employment and micro-enterprises, without the skills base to deliver effective retrofits – leading to a widespread performance gap when works are carried out.

Some local authorities have ambitious targets to reach an average EPC of B for all homes by 2030.¹² Currently, there are no institutions ready to deliver this wholesale transformation of our domestic building stock.

The Solution: Public Retail Companies to Coordinate and Deliver Home Retrofits

Publicly-owned retail companies can accelerate the roll out of housing retrofits.⁵ Regional Energy Agencies with the consolidated customers of the Big 5 would be large enough to recruit and build up a green army of directly employed and properly trained retrofit workers.

They would also be large enough to deploy at the scale and speed required to transform the UK's housing stock by 2030. They could coordinate a door-by-door, street-by-street, whole-house approach to building retrofits, collaborating closely with local authorities.

These Regional Energy Agencies could also target the poorest households first, including social housing, private rentals and owner-occupied homes, with different financing mechanisms for each.

In entering almost every home in the UK and conducting significant disruptive building works, the drive to win public hearts and minds should not be underestimated. Publicly-owned supply companies would allow a level of engagement with consumers that we've not seen before. Customers would be more willing to engage knowing this was not a commercial drive but a matter of public interest in which they could save the planet and cut their costs.

Thousands of workers already spend their time talking to energy customers about bills, debts, new products, new tariffs, and changing accounts. If the nature of this work was

¹¹ [Microsoft Word - UNISONenergypublicownershipreport0619.docx](#)

¹² [London housing plan to help achieve net zero and unlock £98 billion boost to 'greener future' | London Councils](#)

redirected to supporting customers through decarbonisation, we could harness the skills of these workers and the systems already in place to coordinate energy efficiency rollout. The CCC's 2022 Progress Report highlights that "much now rests on the promised energy advice service, which must be a major undertaking that reaches millions of households and supports them through implementation of options to cut their bills and emissions."¹³ Integrating the energy advice service with a holistic delivery mechanism within a publicly owned energy company would create the institutional capability to deliver retrofits at the scale required and ensure buy-in from the public.

¹³ [Current programmes will not deliver Net Zero - Climate Change Committee \(theccc.org.uk\)](https://www.theccc.org.uk/our-work/our-reports/our-reports/2022-progress-report/)

Section Two

A successful public ownership model

A future successful public ownership model needs to achieve the following:

- Protect all low-income households with fairer bills and a social tariff
- Deliver a faster climate transition through the rapid rollout of home retrofits
- Ensure that energy is a public good and that our energy system is both democratically accountable and transparent

The TUC is proposing a model of publicly owned energy to address these challenges, including

- Setting up a National Energy Agency and Regional Energy Agencies, democratically accountable to local government and combined authorities
- Taking the retail divisions of the Big 5 energy companies, and other failing retailers, into public ownership, and consolidating the customers on either a national or regional level.

Public Ownership of Energy Retail

The current model of energy retail is highly-flawed, and already relies on significant government action and repeated bailouts to maintain. It could, if reformed, be structured to deliver on public goods like the zero carbon transition and affordable bills, rather than a market that everybody agrees is dysfunctional.

There are now less than 30 energy retail companies in the UK, after large-scale contraction in the past year. Five legacy suppliers (the "Big 5") cover over 70% of market share: British Gas (Centrica), E.ON, EDF, Scottish Power and Ovo. One other company (Octopus Energy) has 10.7% of customers; all others are less than 5%.³

Taking the Big 5 into common ownership would enable these 70% of customers to be consolidated within public energy agencies. This could happen either at a regional level (Regional Energy Agencies) accountable to local government and combined authorities, or at a national level (a National Energy Agency), creating democratic public ownership and a new relationship of trust.

The publicly-owned retail company or companies could continue to operate within the retail market where households are able to switch from one supplier to another. Like the German Stadtwerke, the public energy agencies could be made the default energy supplier for the area, providing a level of stability and security. They would start off supplying fairly-priced energy and access to a social tariff to over 70% of households (those currently with the Big 5). This includes the majority of the easily-exploited households that never switched.

Costs of Public Ownership of Energy Retail

The TUC has conducted analysis on the likely cost of compensation to government from nationalising the retail divisions of the Big 5. This analysis shows a high-end maximum estimate for taking the Big 5 retail companies, with over 70% of household customers, into public ownership as costing £2.75 - £2.85 billion.

This is an equivalent sum to the £2.7 billion that the National Audit Office estimated that energy customers would need to pay to cover the costs of the 28 energy suppliers that failed since June 2021.¹⁴

We examined three approaches to estimating the compensation costs of nationalisation.

a) Based on listed share price

None of the Big 5 Retail companies (British Gas, Ovo, E.ON, Scottish Power, EDF) is itself a listed market company. All are subsidiaries of parent companies – four out of the five are listed on stock exchanges. Scottish Power Energy Retail Ltd is part of Iberdrola (listed in Spain), E.ON Energy Solutions Ltd is part of E.ON SE (listed in Germany), EDF Energy Customers Ltd is part of Electricite de France SA (listed in France), British Gas Trading Ltd is part of Centrica Plc (listed in the UK), and Ovo Electricity and Ovo Gas are part of Ovo Energy (not listed).

The four parent companies that are listed are highly diversified and integrated energy companies with international operations spanning many countries. The supply of electricity & gas to UK domestic customers is a small part of their operations. We explored estimating a proportion of the total share value, based on the proportion of profits made by the UK energy retail subsidiaries to the parent company's total profits.

However, the current lack of profitability in the energy supply sector means that many are loss-making, and play a negative role in the parent companies' overall profits. This would lead to an assessment of market value as a negative figure – potentially borne out by the reports that the government is planning to provide a "generous dowry" for the companies bidding to take over failed energy supplier Bulb.¹⁵

b) Based on recent market transactions

Ovo Energy purchased SSE's energy retail business with 3.5 million customers for £500 million in January 2020.⁶ The primary asset considered in this sale were the customers.

Calculating an average cost per customer based on Ovo's purchase of SSE's business, gives an upper-end estimated compensation cost for the five legacy suppliers with 71% of energy consumers as £2.85 billion.

¹⁴ <https://www.nao.org.uk/press-release/the-energy-supplier-market/>

¹⁵ [Octopus submits last-minute bid for electricity supplier Bulb | Financial Times \(ft.com\)](https://www.ft.com/content/2021/06/24/octopus-bid-bulb)

Using the same approach, compensation for nationalising all energy supply companies with all 28 million electricity consumers (and 23 million gas consumers) is estimated to cost £4 billion.

However, this sale preceded the gas price crisis and collapse of the energy retail market. Profit margins for energy retail businesses have shrunk significantly, and the Big 5 have had to repeatedly pressure government for market adjustments to enable them to stay afloat.

This means that the market value now is significantly below what Ovo paid for SSE's retail business in January 2020, and our estimate of £2.85 billion is a significant over-estimate.

c) Based on equity book value

Financial accounts record the equity book value of any given company – a figure that incorporates investments made into companies, value created through profits made by companies, and value extracted through dividends.

The most recent accounts (2020-2021) for the Big 5 legacy suppliers show total book equity of £2.75 billion.

Case Study: the UK's switch from town gas to natural gas

The last wholesale technological energy transformation the UK has seen was the switch from town gas to the natural gas networks of today. The programme, delivered by a central public sector body, is a model for how today's technological transitions (such as a building insulation programme) could be carried out.

Sir Denis Rooke, chairman of British Gas from 1976 until 1989 and one of the chief engineers of the programme, called it "perhaps the greatest peacetime operation in the nation's history." The programme involved converting around 40 million appliances for 14 million customers, reaching a peak of 2.3 million a year in the 1970s. The public corporation responsible for the works conducted a massive public relations exercise and consumer engagement. The programme went door-to-door and street-by-street.

Centralised planning, recruitment, training and customer engagement, alongside the fact that the programme was free and provided households with an easy way to upgrade their domestic appliances, assured the programme's success: scarcely imaginable in a fragmented construction sector. Only a public body would have had the confidence of the public and the ability to ensure that such a conversion programme was accepted by consumers. It also standardised delivery, making it cost effective and logistically possible.