Retail Reimagined

How Regional Energy Boards Could Deliver a Fair and Flexible Energy System

COMMONWEALTH

Stephen Hall

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Contents

Key Points

- Since privatisation, energy supplier switching has needed constant regulatory intervention to protect consumers — a free market in energy retail supply has never durably emerged. Instead we have a heavily regulated, "broken and illusory market". Retaining supplier switching when we need a rapid and universal energy transition may be creating more problems than it solves.
- We can accelerate investment in our homes' efficiency and add smart clean technologies much faster if we create a permanent relationship between consumer and supplier. Meanwhile the prospects of Smart Local Energy Systems (SLES) to optimise local grids could be transformed by a stable relationship with a single local energy retailer.
- The liberalised retail market should be replaced by Regional Energy Boards (REBs), akin to the Area Boards of the twentieth century. Taking advantage of economies of scope and reducing transaction costs, these Boards would coordinate home, heat and travel decarbonisation.
- Consumers would automatically be placed onto the most appropriate tariff to immediately enjoy the benefits of clean energy investments, and would no longer have to compete with other, better capitalised and more engaged consumers.
- Fixed REBs would also be better suited to administering a greater range of proposed social policies aimed at tackling energy poverty — including innovative social tariffs and linked home efficiency improvements.
- REBs could be set up within this parliament and would not involve significant capital expenditure.

Executive Summary

> It is hard to see how privatisation of retail energy has resulted in anything other than a broken and illusory market.[1]

The retail energy market, where we go to switch supplier, is not working as hoped. Moving to a system of Regional Energy Boards (REBs), each of whom supplies all customers in a given area, would accelerate energy efficiency improvements in homes, simplify support for fuel poor families, and give everyone access to the benefits of a flexible, clean energy system.

We have seen Regional Energy Boards before. Less than 40 years ago everyone's energy billing came from regional public suppliers, with these boards delivering the pace and scale of change which is needed again today.[2] We propose a new series of Regional Energy Boards to become the "retail" energy supplier for everyone in each region, named at the top of everybody's bills.

Where are we now?

Right now, our ability to "switch" our energy supplier — the capital-light entity that purchases electricity from generators to sell to consumers — has five problems.

1. A retail market built around engaged consumers cannot function when so many are disengaged from switching: Consumers don't want to be constantly engaged hence the market needs constant regulatory intervention.
2. We are trying to solve fuel poverty within the energy market: this is not how markets work. In a market, those who have more get more, and trying to bend the rules because we are not willing to let people go without energy does not work.
3. We have split the organisations responsible for decarbonising homes: we are trying to deliver smart clean energy through retailers and energy efficiency schemes through local governments. This stops us creating whole-home solutions.
4. Competition means competing against each other: wealthier more engaged homes will always outcompete poorer homes to benefit first from clean and

[1] Stonehaven, "Reinventing Retail Energy: Making the energy retail market fit for the next generation", Stonehaven Global, 2023.

[2] Stathis Arapostathis, Scott Laczay and Peter Pearson, "Steering the 'C-Day': Insights from the rapid, planned transition of the UK's natural gas conversion programme", *Environmental Innovation and Societal Transitions,* 2019, vol. 32, pp.122–139.

smart energy technologies, a competitive retail energy market makes this problem worse.

5. The current retail energy market does not support local energy: National retail models do not support local energy schemes, impacting economic development and flexible local systems.

Great Britain was one of the first countries to enable householders to choose their electricity and gas provider on an open market. Supplier competition was supposed to benefit consumers and drive innovation. This has not happened, instead we have a created a heavily regulated set of corporate utilities who administer a complex system of consumer switching for no discernible benefit.

How would Regional Energy Boards solve it?

This report is concerned with how end-customers' relationship with the energy sector is organised. It does not address terms on which generators sell electricity in the national wholesale market or bilaterally "over the counter", but a move to REBs is compatible both with the wholesale market status quo and with the various reforms that have proposed, including a single buyer option. This report focuses on five benefits of moving to publicly owned REBs:

Fairness: a Regional Energy Board supplying everyone in the region can design and deliver tariffs suited to different household incomes and needs.

Flexibility: publicly owned Regional Energy Boards can deliver a flexible system by directly managing all assets in an area instead of relying on consumer engagement.

Fabric improvement: regional Energy Boards complement an area-based approach to home energy retrofit joined up with the Warm Homes Plan.

Fast action: establishing Regional Energy Boards can be fast and relatively cheap. It can be deployed in this parliament.

First mover: because Regional Energy Boards are fast to set up, they can respond quickly to public opinion that a wider privatisation and markets experiment with Britain's national infrastructure has failed. Regional Energy Boards can be delivered, setting a blueprint for positive progress in public ownership.

These five benefits flip 40 years of assumptions about how to deliver public benefit in an energy system. Instead of more competition and more markets, REBs can leverage economies of scope by coordinating heat and transport electrification, making homes warmer and bills lower and more predictable.

Introduction

Having a "contestable" retail energy market means that people choose which company supplies them with electricity and gas. We can each switch our energy supplier within five days. In this report, we show that this market is not doing what it is supposed to do — the assumptions about how people would behave in the market were wrong and that structural change is needed. A move to a non-contestable model, where all homes and small businesses in each region have the same, would deliver five benefits: a fairer and more flexible system that can support long-term energy efficiency upgrades to the fabric of our homes. The transition to Regional Energy Boards can be done fast, because retail energy supply companies are asset light and currently have low market value. The transition to Regional Energy Board can be done first, before deeper public interventions in other parts of the system.

First, we summarise how a Regional Energy Board would work as a single retail supplier. We then explore five structural problems with the current market. After detailing each problem, we explore how Regional Energy Boards provide solutions by leveraging "economies of scope".

Historical context: from "the electricity boards" to choosing suppliers

The GB electricity market was nationalised in 1948 and was operated by nationally owned corporations until 1989. During the nationalised period, a householder received their energy bill from one of fourteen electricity and one of twelve gas "boards" who were responsible for all customer facing activity and the distribution grids.[3] Gas was initially in area boards until the publicly owned British Gas Corporation was established in 1973.[4]

The 1989 Electricity Act began the privatisation of the electricity industry (gas had started with The Gas Act 1986), enabling the creation of four distinct parts of the market: generation, transmission, distribution and retail supply.[5]

[3] John Surrey, *The British Electricity Experiment: Privatisation: The Record, the Issues, the Lessons*, Routledge, 2013.

[4] Andrew Jenkins, "Government intervention in the British gas industry, 1948 to 1970", *Business History*, 2004, vol. 46(1), pp.57–78.

[5] Electricity Act 1989, Legislation.gov.uk. Available here. Gas Act 1986, Legislation.gov.uk, 1986. Available here.

The core focus of privatisation was on how the generation (wholesale) market would work and how to regulate the transmission and distribution networks.[6] Household choice in retail supply arrived later and was not initially envisaged as a concern for the privatisation drive.[7] Once adopted, however, supplier switching became the core feature of the retail market; which Ofgem argued had become a "powerful influence on the behaviour of companies" competing to be the best at buying power as cheaply as possible on behalf of their [active] customers and driving innovation in consumer tariffs.[8] The retail market is built on consumer switching — active, informed and involved consumers are essential to its function. As we detail in problem one, these consumer behaviours have not emerged.

Over time this behavioural expectation became embedded in every aspect of the operation of the retail market, from the rules governing market entry to the ways in which vulnerable consumers were protected. Our proposal for REBs offers a different organising principle which does not depend on continuous consumer participation to function effectively.

What is a Regional Energy Board and how would it work?

A Regional Energy Board is a familiar entity across energy markets that have chosen not to implement retail competition. Usually this consists of a single company responsible for all customers' metering and billing in a geographic area. No two countries are quite the same when it comes to who owns and operates the electricity and sometimes gas systems. Some have only liberalised generation, leaving transmission, distribution and retail supply in public hands. Others have public transmission systems and municipal distribution networks. Often when there is no retail competition the distribution network operator is also the energy supplier.

We do not think our existing distribution network companies should take on consumer bills. The difficulties inherent in regulating capital-intensive natural monopolies — evidenced both here and in the US, where many regions' utilities have

[6] David Newbery, "Electricity liberalisation in Britain: the quest for a satisfactory wholesale market design", *The Energy Journal*, 2005, vol. 26, pp.43–70.

[7] Stephen Littlechild, "The creation of a market for retail electricity supply", Cambridge Working Papers in Economics, 2010.

[8] "Domestic gas and electricity supply competition recent developments", Ofgem, 2003.

retail integrated[9] — suggest making existing Distribution Network Operators (DNOs) the monopoly supplier on retail would be unwise. Instead, our proposal is for REBs to be owned as they once were, as public enterprises, with either full state control or with the state having a majority controlling state as mixed municipal and mutual ownership.

In this proposal, a REB would need primary legislation to be created because it would take on all customer accounts in its geographic area except for industrial and large commercial users. All homes and smaller businesses would return to being with one supplier. If REBs were to be established with no other changes to the energy market, they would have to purchase electricity and gas from the wholesale market like any other retail supplier.[10]

Regional Energy Board establishment could complement (but does not rely on) a move to a single buyer model in the wholesale market.[11] In this model the National Energy System Operator (NESO) buys all power and power services on a single platform and passes them on a single price. Figure 1 shows the two options: REBs in a single buyer market and REBs in the existing wholesale market.

Regional Energy Boards: a solution based on economies of scope

We are not the first to suggest the problems of the retail energy market are beyond a competitive model to solve. The TUC have previously explored similar options for public regional energy agencies, while Nesta evaluated five different options, of which two — awarding competitive franchises and allowing DNOs to be responsible for retail supply — entail an end to supplier switching.[12]

Regional Energy Boards are a distinct proposal for three reasons, first because we do not propose timed franchises, since we envisage REBs being established over the long term by the state to enable inter-generational investment. Second, while

[9] Andy Manning and Sam Hughes, "Debt to society: what the network companies should do with their windfall profits", Citizens Advice, 2025. Available here. Mark Ellis, "Rate of return equals cost of capital: A Simple, Fair Formula to Stop Investor-Owned Utilities From Overcharging the Public", American Economic Liberties Project, 2025. Available here.

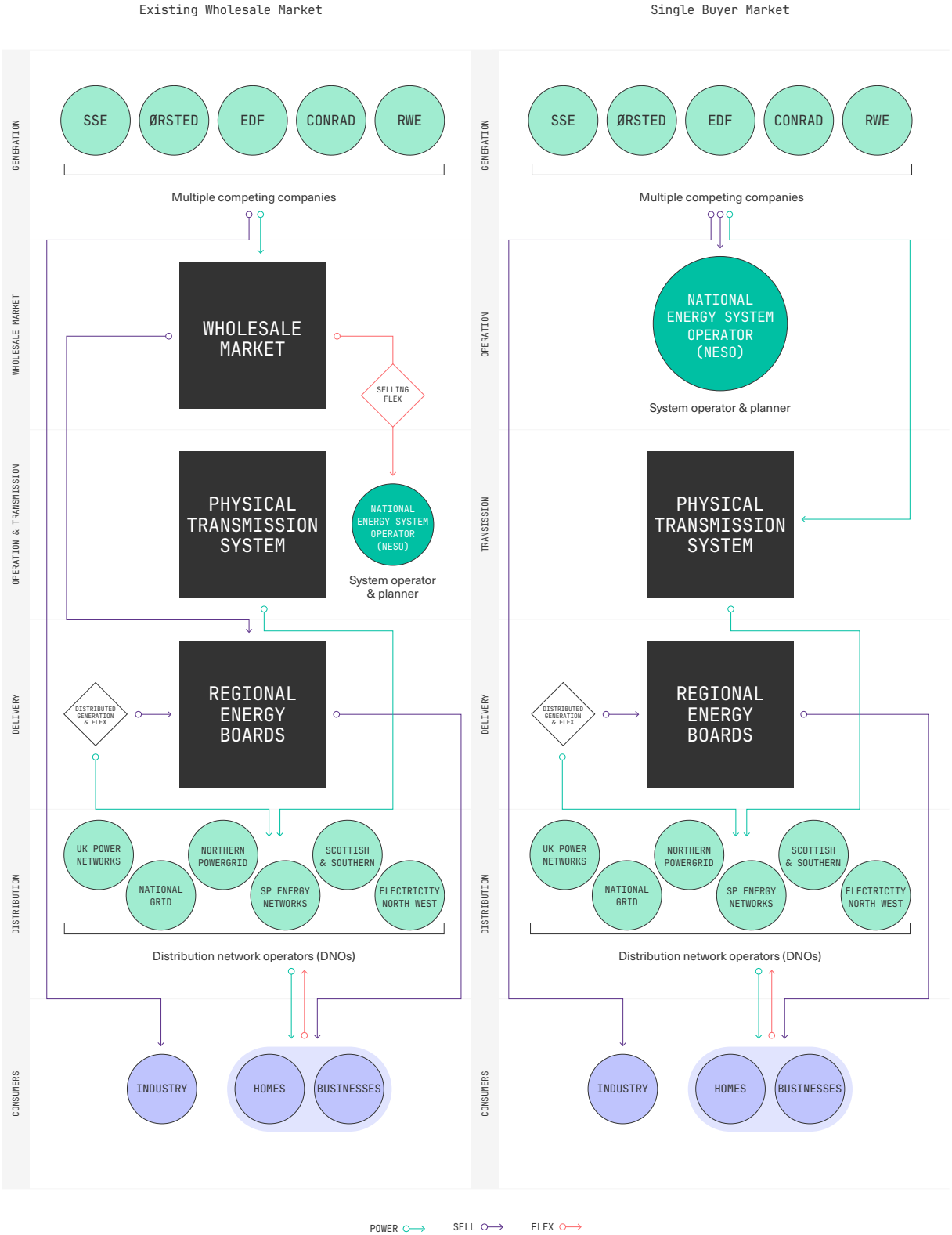
[10] "About Balancing and Settlement Code (BSC)", Elexon, 2025. Available here.

[11] Donal Brown, "Fixing the Price: How a Single Buyer Model Could Slash UK Electricity Prices and Build Consent for the Clean Power Mission", Common Wealth, forthcoming 2026.

[12] "A fairer energy system for families and the climate", Trades Union Congress, 2022. Available here; Karen Dawson, Stuart Cook and Eilidh Hughes, "Future of energy retail: how could the electricity retail market be designed to better support net zero delivery?", Nesta, 2024. Available here. The other three options are loosening regulation to encourage innovation, introducing a default supplier and allowing others to innovate, and introducing split metering.

we see public ownership of DNOs as an important part of delivering a just energy transition, we propose publicly owned REBs start with retail first, which can be done faster than bringing the networks into public ownership and within existing fiscal limits. Finally, we are making a case for REBs based on “economies of scope”.

Figure 1: REBs in a Single Buyer Market and REBs in the Existing Wholesale Market



Source: Author’s visualisation.

An "economy of scope" is where an organisation benefits from producing more than one product.[13] For utilities and public services this includes the types of labour skills and capital employed in generating electricity, which may also complement its transmission and distribution. Similarly, systems that monitor distribution networks may be better integrated with metering and billing, advertising and other customer relations.[14]

A historical example of the economies of scope in REBs is the gas conversion of 1967-77, following the 1966 decision to convert the gas system and household and commercial appliances from town gas to natural gas. This enormous undertaking — training a directly employed workforce and modifying 35 million appliances across about 13 million homes and 440,000 commercial and industrial premises — was accomplished via phased regional and local switching, and was accompanied by a major public engagement campaign.[15] For customers and other stakeholders, gas had one face — that of the regional gas board.[16] This conversion is now being re-studied, as it shows the economies of scope available to regional coordinating bodies with a real and protected stake in the energy system.

In the case of REBs the economies of scope are the ability to hold all consumer accounts in an area, to act as a single billing entity which can optimise local energy assets, maximise the benefits of home energy upgrades, and deliver tariffs and business models suited to public needs and to act as a single public face for energy. These economies of scope put public value back at the heart of system design and complement the delivery of the Warm Homes Plan and Local Power Plan.

In the next five sections we lay out five persistent problems in the retail energy market which have led to a series of disconnected regulatory "patches" like the energy price cap, which both limit these economies of scope and have culminated in a system far removed from the open market planned in the 80s and 90s. We set out how REBs' economies of scope solve these problems in ways competitive markets cannot.

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[13] Michael Pollitt and Steven Steer, "Economies of scale and scope in network industries: Lessons for the UK water and sewerage sectors", *Utilities Policy*, 2012, vol. 21, pp.17–31.

[14] Ørjan Mydland, Subal Kumbhakar, Gudbrand Lien, Roar Amundsveen, and Hilde Marit Kvile, "Economies of scope and scale in the Norwegian electricity industry," *Economic Modelling,* 2020, vol. 88, pp.39-46.

[15] Overseen by the Gas Council then British Gas, sales rose nearly 400 per cent between 1966 and 1977 while price per fell about 16 per cent; Arapostathis, Laczay and Pearson, "Steering the 'C-Day'...", *Environmental Innovation and Societal Transitions*, p. 122; Peter Pearson, "Insights from the UK's conversion from manufactured gas to North Sea Gas, 1966–1977", European Energy Forum*,* 2019.

[16] Aaron Gillich, "Market transformations: gas conversion as a blueprint for net zero retrofit", *Buildings and Cities*, 2025, vol. 6(1), pp.359–377.

Problem One: A Retail Market Built Around Engaged Consumers Cannot Function When So Many Are Disengaged From Switching

> ...the [British] retail market in the post liberalization era has not only failed to achieve its original objectives but has also proved to be unfit to keep pace with technological change, consumer preference, and the energy transition.[17]

Allowing domestic customers their choice of energy supplier was not a central organising goal of system privatisation and liberalisation.[18] Government had little discussed domestic retail competition throughout the 1980s and even into the 1990s. Between 1990 and 1998 however the retail energy market opened, as the newly privatised regional energy companies first had to compete for larger, and then medium sized commercial consumers. Finally, and almost hurriedly, competition opened for all 20 million domestic consumers by 1998.[19]

Retail suppliers were supposed to attract customers based on their ability to buy the cheapest power available which matched customer demand.[20] The consumer's role was, and is, to enter the market and "discover" their preferred supplier of

[17] Rahmatallah Poudineh, "Liberalized retail electricity markets: What we have learned after two decades of experience?", Oxford Institute for Energy Studies, 2019.

[18] Littlechild, "The creation of a market for retail electricity supply", Cambridge Electricity Policy Working Group.

[19] Ibid.

[20] Christoph Defeuilley, "Retail competition in electricity markets", *Energy Policy*, 2009, vol. 37(2), pp.377–386.

electricity and/or gas.[21] For this market to function effectively *most customers* have to be engaged, they have to be a "utility maximising" or "satisficing" individuals with at least good foresight on what energy deal is right for them and who can provide it.

This competitive relationship was supposed to ensure that supplier profits would be marginal — consumer choice would select the retailers most efficient at buying wholesale power and serving their needs. In turn retailers would put pressure on the wholesale market by seeking the mix of generation that would enable them to offer attractive retail contracts, and an efficient system would emerge which, unlike the networks, would need little regulation.[22]

Did active and engaged consumers emerge?

In 1998 domestic consumers switched at the rate of one per cent per month. A decade later 50 per cent of consumers were still with their incumbent supplier.[23] By 2002, Ofgem was content that supplier switching was strong enough to remove regulatory controls on retail.[24] By 2008, however, Ofgem was raising concerns over the programme for residential customers, having found incumbent energy suppliers in former monopoly areas were charging an average of ten per cent higher prices to non-switchers.[25] Low switching rates and the effect on vulnerable and inactive consumers would dominate concerns over retail energy markets for the following decade.[26]

Some consumers were active and engaged, but it seemed to be the same type of consumer, active, engaged and somewhat affluent, leaving disadvantaged and disengaged consumers more vulnerable.[27] What followed was a series of interventions limiting the number and type of tariffs suppliers could offer and the

[21] David Newbery, *"The UK experience: privatisation with market power",* A European Market for Electricity, 1999, pp.89–115.

[22] Poudineh, "Liberalized retail electricity markets", Oxford Institute for Energy Studies.

[23] Littlechild, "The creation of a market for retail electricity supply", Cambridge Electricity Policy Working Group.

[24] Ofgem, "Domestic gas and electricity supply competition recent developments", Ofgem, 2003.

[25] "Energy Supply Probe - Initial Findings Report", Ofgem, 2008. Available here.

[26] "Energy Market Investigation Final Report", Competition and Markets Authority, 2016.

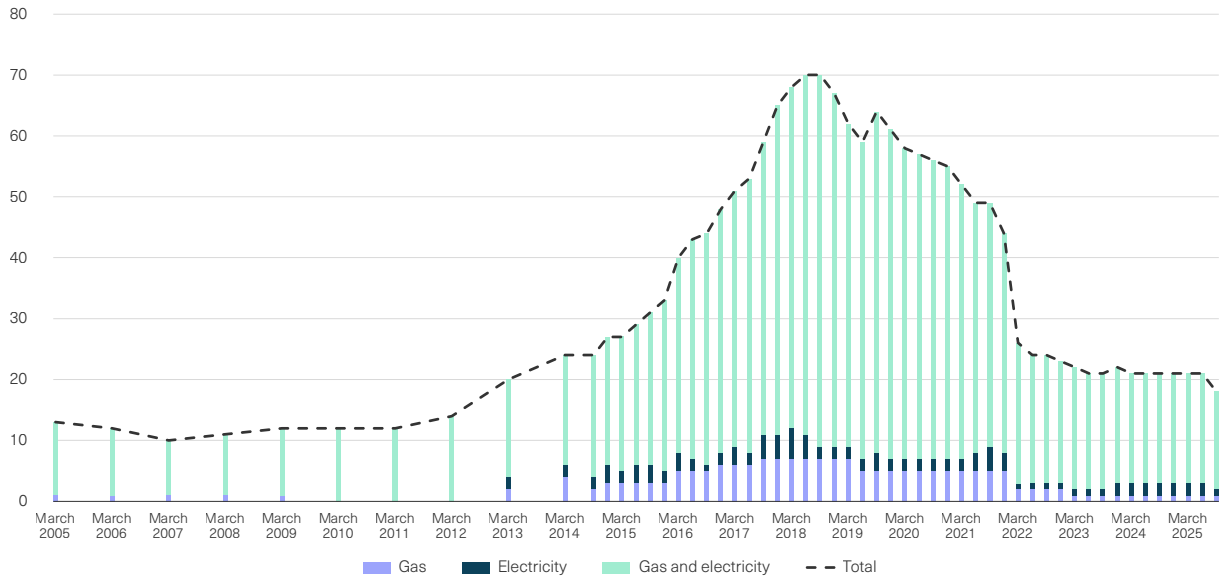
[27] Stephen Littlechild, "Promoting or restricting competition?: Regulation of the UK retail residential energy market since 2008", Cambridge Working Papers in Economics, 2014.

introduction of new non-discrimination rules. These interventions were seen as antithetical to a competitive market, limiting consumer choice and tariff innovation.[28]

To try to re-invigorate consumer switching, new entrants were to be encouraged. Post-liberalisation, between 1998 and 2004 the market had concentrated around the "Big Six" energy retailers who held 99 per cent of the retail market in 2004. This would persist until 2012 when a package of measures in Ofgem's Retail Market Review allowed new players to emerge (Figure 2).[29]

Figure 2: Suppliers Are Barely More Numerous Now Than Before Ofgem's 2012 Retail Market Review

Number of active domestic suppliers by fuel type



Source: Ofgem Retail Market Indicators, October 2025.
Note: Ofgem reporting changed from annual to quarterly in 2014.

These included First Utility/Shell Energy, Utility Warehouse and other small suppliers comprising six per cent of the market; small suppliers, including municipally owned competitive retail companies, would comprise 12 per cent of the market by 2018.[30] This was aided by lowering barriers to entry by removing social and environmental duties on smaller suppliers and expanded use of "supplier in

[28] Stephen Littlechild, "Promoting competition and protecting consumers? Regulation of the GB retail energy market 2008-2016", *Journal of Regulatory Economics,* 2019, vol. 55, pp.107-139.

[29] "Retail Market Review: Intervention to enhance liquidity in the GB power market", Ofgem, 2012.

[30] Ben Gallizi, "Who are the big six UK energy companies?", Uswitch, 2025.

a box" arrangements.[31] By 2019 there were more suppliers than ever — there was £200 worth of difference between the average direct debit customer's bill on a "large legacy supplier" and the cheapest tariff available on the market.[32]

The great exit

Closer regulation of the retail energy market gathered pace after 2016 when the Competition and Markets Authority investigation found incumbent utility firms were routinely overcharging customers to the tune of £1.4-2 billion in 2015 or 4-9 per cent of market size, with particular detriment to those on prepayment meters who tend to be lower income.[33]

While switching was helped by an increasing number of suppliers in the market, the stability of smaller suppliers was being called into question. Ofgem responded with a Supplier Licensing Review in 2019, which introduced stricter financial checks and operational standards.

Retail market evolution in this period showed that is possible to increase competition and enable new suppliers to offer low and fixed prices to consumers. However, this means allowing challenger brands to take the risk that prices won't spike and they won't be left exposed with a fixed revenue base and an expanding cost. Ofgem's 2019 introduction of the default tariff price cap, fixed for periods of six months initially and then three months from late 2021, marked a significant departure from the deregulatory ethos. Designed to protect disengaged consumers from excessive charges, the cap limits unit prices and includes a regulated profit margin (EBIT) of around two per cent.[34]

A combination of capped prices, wholesale volatility and aggressively priced offers to consumers for acquisition purposes, would play out differently across different suppliers, caused first by the Covid-19 pandemic then Russia's invasion of Ukraine and subsequent gas price spike. This left many unable to meet their obligations. Between July 2021 and May 2022, 29 suppliers had exited the market forcing 2.4 million customers through the Supplier of Last Resort mechanism; this cost billpayers £2.7 billion which equates to around £94 per customer if spread

[31] Jess Britton, Jeffrey Hardy, Catherine Mitchell and Richard Hoggett, "Changing actor dynamics and emerging value propositions in the UK electricity retail market", iGov, 2019. Here new entrants can buy "off the shelf" systems and processes to attain a supplier license and go through controlled market entry.

[32] "Retail Price Comparison by Company and Tariff Type", Ofgem, 2026. Available here.

[33] "Energy Market Investigation Final Report", Competition and Markets Authority, 2016.

[34] "Energy Price Cap Explained", Ofgem, 2025. Available here.

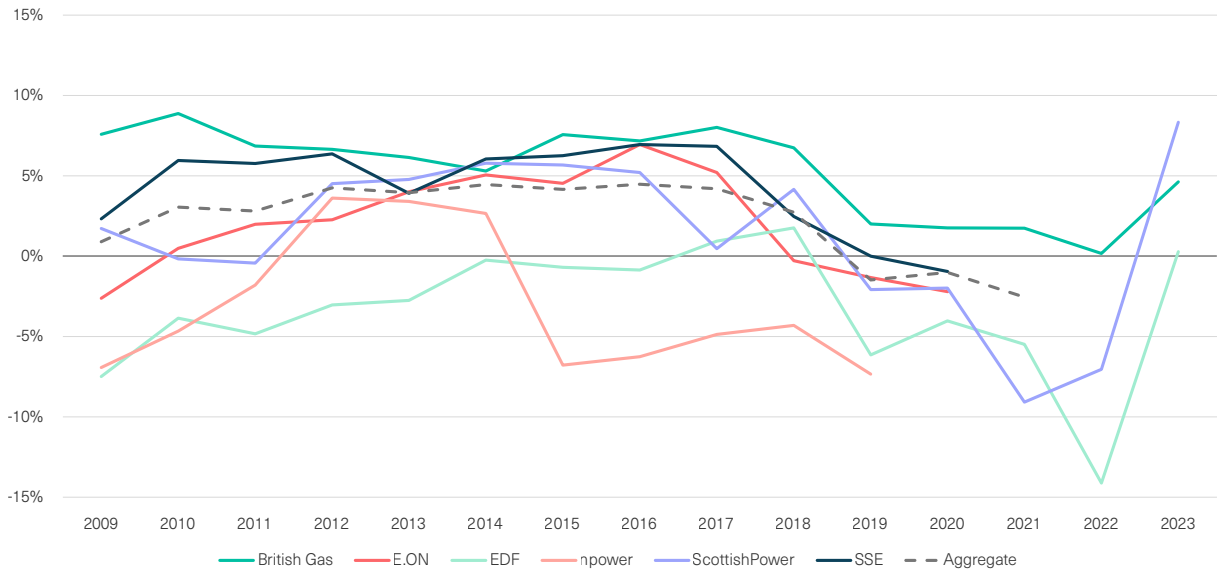
across all households, or around £1,125 per customer of just the failed suppliers.[35] Far more than the average benefit of switching supplier at the time.[36]

Ofgem's subsequent Supplier Licensing Review introduced capital adequacy requirements, a minimum of £115 in net assets per customer from 2023, to strengthen financial resilience across the sector and avoid disorderly exits.[37] The Government's support for Bulb late in this period of supplier exits, demonstrates the desire to keep some supplier diversity in the market and the importance placed on retaining effective supplier switching.[38]

In 2022-23 the market stabilised and only a few suppliers exited the market, but the damage seems to have been done. New market entry stalled, and retail suppliers are continuing to run loss-making businesses (Figure 3). Some are struggling to sell the retail arms they have.[39]

Figure 3: Retail Margins Have Been Especially Weak in Recent Years

Pre-tax domestic supply margins of large legacy suppliers, combined gas and electricity



Source: Ofgem Retail Market Indicators, April 2024, and individual Consolidated Segmental Statements.

[35] "The Energy Supplier Market", National Audit Office, 2022. Available here.

[36] "Retail Price Comparison by Company and Tariff Type", Ofgem, 2026. Available here.

[37] "Ofgem sets out clear expectations for energy suppliers on financial resilience and supporting consumers", Ofgem, 2023; Jonathan Brearley, "Supplementary written evidence (COE0087)", House of Commons, 2025. Available here.

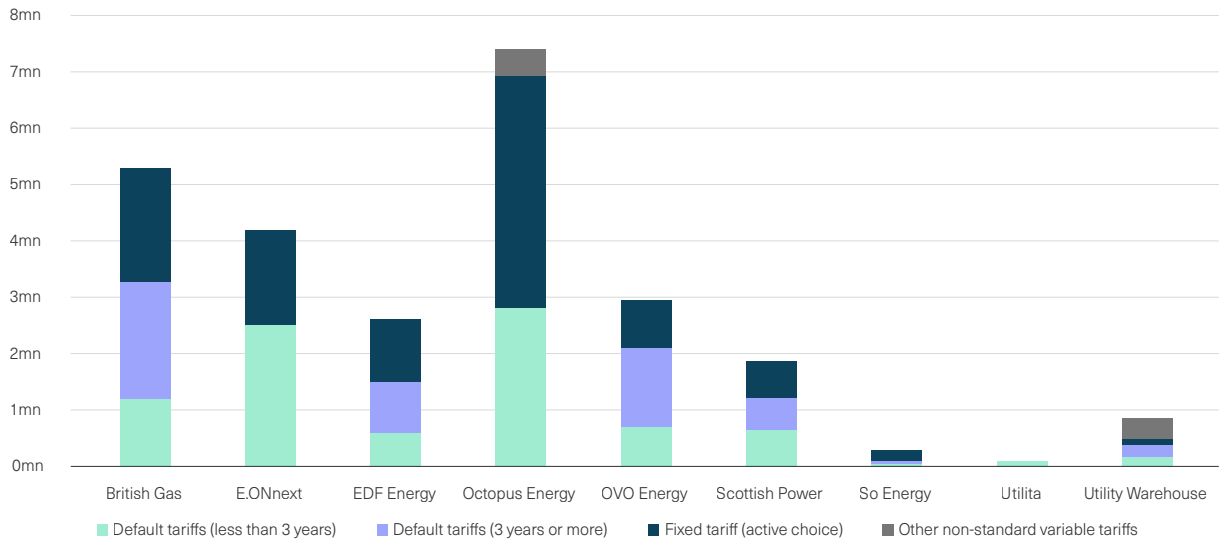
[38] "The cost of the Government's energy support policies", Office for Budget Responsibility, 2023. Available here.

[39] Rachel Millard and Ashley Armstrong, "Scottish Power's owner explored deal for UK retail energy unit", *Financial Times*, 2025. Available here.

With the benefit of hindsight customer inactivity has emerged as a persistent, multi-decadal problem, most large suppliers have over 50 per cent of their customer base are on default tariffs, i.e. they have not made an active tariff choice (Figure 4).

Figure 4: Even Among Newer Suppliers, Default Tariffs Are Widespread

Number of domestic electricity customer accounts by supplier (excluding prepayment)



Source: Ofgem Retail Market Indicators, July 2025.

Ultimately, increasing the levels of competition in a market should lead to better consumer outcomes, but increasing levels of competition in a sector which has such high barriers to entry meant lowering some of these barriers, creating significant risks. Therefore, inviting new suppliers into a market where prices are capped, now looks very challenging.

Why the current market cannot fix it

Change is needed because what has emerged is not a competitive retail market. While at the time of writing there is some price differentiation, it is difficult to determine whether this differentiation is based on a successful wholesale strategy which is what was intended, or whether inactive consumers continue to subsidise the active choices of the more engaged, which was what was expected:

> “...price discrimination could be an efficient means of sharing costs rather than of securing

> excess profit: that is, a 'two-tier market' with active customers paying marginal cost and less active customers sharing overhead costs could be the outcome of a competitive market.[40]

A case for structural change should be made when the foundational assumptions which underpinned the design of the market in the first place have been shown to be false. The success of fully liberalised retail energy markets rests on the assumption of all consumers becoming active and engaged. Experience now shows they are not. Many customers in retail energy markets are not engaged in the way regulators and reformers hoped.[41] They stick with what they know and avoid the switching decision even when £100-200 is "left on the table".[42]

It is not that allowing people the right to switch supplier doesn't have any effect on prices.[43] Instead, what happens is that higher education, income and trust in the institutions of the market are consistent predictors of who "wins" in energy retail markets, meaning the "losers" are further disadvantaged.[44] Trust in social institutions — broader utilities, mobile phone providers, charities etc. — is a strong determinant of how much you will trust the switching decision.[45] Winners win, losers lose, and retail energy markets exacerbate this trend. This leads the state to step in and re-regulate the liberalised market, so it is not really functioning as a market anymore.

In short, what has emerged in British retail energy is a broken and illusory market. With a consistent, widespread refusal to acknowledge that many consumers do not and will never fully engage with the switching decision, and that these customers tend to already experience disadvantage. A series of regulatory patches and interventions have followed, which leave us with a strange hybrid between an

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[40] Stephen Littlechild, "The CMA's assessment of customer detriment in the UK retail energy market", Cambridge Working Papers in Economics, 2015.

[41] David Deller, Monica Giulietti, Graham Loomes, Catherine Waddams Price, Anna Moniche, and Joo Young Jeon; "Switching energy suppliers: It's not all about the money", *The Energy Journal*, 2021, vol. 42(3), pp.1–26; Ali Hortaçsu, Seyed Ali Madanizadeh and Steven Puller, "Power to choose? An analysis of consumer inertia in the residential electricity market", *American Economic Journal: Economic Policy*, 2017, vol. 9(4), pp.192–226.

[42] Deller et al., "Switching energy suppliers: It's not all about the money", *The Energy Journal.*

[43] Carlo Amenta, Martina Aronica, and Carlo Stagnaro "Is more competition better? Retail electricity prices and switching rates in the European Union", *Utilities Policy*, 2022, vol. 78, p.101405.

[44] Andrew Kleit, Anastasia V. Shcherbakova, and Xu Chen, "Restructuring and the retail residential market for power in Pennsylvania", *Energy Policy*, 2012, vol. 46, pp.443–451. *Energy Market Investigation Final Report*, Competition and Markets Authority, 2016. Defeuilley, C., 2009. Retail competition in electricity markets. *Energy Policy*, *37*(2), pp.377-386.

[45] Stephen Hall, Jillian Anable, Jeffrey Hardy, Mark Workman, Christoph Mazur, and Yvonne Matthews, "Matching consumer segments to innovative utility business models", *Nature Energy*, 2021, vol. 6(4), pp.349–361.

open market and a regulated system where most suppliers have become unable to effectively compete on price, and most of whom are making losses. There is no economic theory that would design this solution. The question then should be, what is the retail market *for?* And is the customers' "right" to switch supplier creating more problems than it solves?

How would a Regional Energy Board solve it?

Regional Energy Boards eliminate the poor distributional outcomes caused by market disengagement by ending the need for consumers to enter the market at all. If every household and SME were served by a single regional board, inactive and disengaged consumers could be placed automatically on the most cost-effective tariff for them.[46] The current practise withing the Energy Price Cap is to set prices for default and average tariffs.[47]

If consumers do not have to remain active to ensure good deals, the responsibility for being on the "correct" tariff for them shifts to a regulated duty of the Regional Energy Board. If the company responsible for metering and billing does not have to compete against rivals, then the pressure to subsidise active consumers with the bills of inactive ones is diminished or eliminated.

If Regional Energy Boards had to enter the wholesale market on behalf of their customer base, then they would be placed in competition with each other and some regional disparities in price may emerge.[48] A move to a single buyer function would ensure that a "system price" would be paid by REBs per 15-minute block from the wholesale pool. All consumers irrespective of market engagement would then pay the same price for power and it would be up to the REBs to decide on the appropriate tariff structure and offers for their region. REBs solve problem one by taking the supplier switching decision *out of the market altogether*.

[46] We envisage industrial users over a certain size to be able to contract for power directly, or choose the REB rate.

[47] "Changes to the energy price cap between 1 January and 31 March 2026", Ofgem, 2025. Available here.

[48] We have not taken a position in this examination on REBs compatibility with zonal pricing.

Problem Two: We Are Trying to Solve Fuel Poverty Within the Energy Market

Markets are not set up to deliver their goods to those who cannot afford them. In a market, those who have more get more; those who have less get less. Energy is not like other consumer goods, we cannot do without it, and in a country this rich we know others should not have to either. Our response to date has been a mix of direct support and trying to fix fuel poverty in the market. Retail energy suppliers in Great Britain have been tasked with delivering two types of fuel poverty reducing scheme; those that reduce bills through "social tariffs" and those that make fabric improvements.[49] The fragmented landscape for fabric improvements is covered in the next section; this section covers social tariffs.

Trying to derive social outcomes through market delivery

There are five main types of proposals for dealing with fuel poverty through social tariffs or direct support. Debt relief schemes, lump sum payments, unit rate discounts, discounts on standing charges, and rising block tariffs.[50]

- Debt and debt relief schemes: Consumer debt is a growing issue in the retail energy market. Energy debt is only one factor in a wider cost of living crisis, but it is reaching levels which affect both the consumer and the retail energy companies. Household energy debt has risen sharply and currently stands at £4.43 billion[51] (Figure 5), causing real and increasing harm to millions of households.[52] Ofgem is working actively with suppliers to solve the accumulating debt burden.[53]

[49] "Supplier obligations: environmental and social schemes", Ofgem, 2023. Available here

[50] "Exploring Options for Improving Energy Bill Equity for Fuel Poor Households", Committee on Fuel Poverty, 2025.

[51] "Debt and Arrears indicators", Ofgem, 2025. Available here.

[52] "Frozen in place: Why the Government needs to move quicker to address energy affordability," Citizens Advice, 2025. Available here.

[53] "Debt Repayment Pilot Evaluation", Ofgem, 2023.

- Lump Sum Payments: Lump sum payments have been widely used in Britain. The Warm Home Discount provides a one-off £150 winter payment to eligible households. Positive elements include simplicity and familiarity but WHD is criticised for failing to reflect differing energy needs. Similarly, the Winter Fuel Payment has long offered lump sums to pensioners. Lump sums are administratively straightforward but blunt instruments, favouring low-usage households while leaving high-usage vulnerable groups under-supported.

- Standing Charges: Standing charge redistribution has been back on the agenda since Ofgem equalised prepayment meter standing charges with direct debit tariffs in 2024. Redistributing the costs on the standing charge would benefit many low-income, low-usage households (around 5 million), but disadvantage many vulnerable households with high energy needs (around 1 million).[54] In practise standing charge alterations are often wrapped up in discussions on lump sum discounts or unit charge reductions.

- Unit Rate Discounts: Unit rate discounts have been tested through social tariffs offered by suppliers in the 2000s, which reduced per-unit costs for vulnerable customers. Evaluations found they better targeted households with high energy needs but were complex to administer across suppliers and were inconsistently applied.[55] In 2023 the Scottish Fuel Poverty Panel recommended a unit rate discount/social tariff be adopted in place of the Warm Homes Discount.[56] Internationally however, France's chèque énergie replaced a social tariff with block discounts on energy bills for low-income households.[57]

- Rising Block Tariffs: Rising block tariffs make the first units of household energy cheaper and charge higher rates for later blocks, so essentials like heating, lighting and cooking cost less while discretionary use is penalised. In 2023 the New Economics Foundation (NEF) proposed a National Energy Guarantee: essential blocks free for everyone, subsequent blocks at market rates, and a premium for very high use to subsidise the free allowance. NEF estimated about 80 per cent of UK households would benefit, rising above 90 per cent for the poorest, who could save £230 to £350 a year depending on prices; higher-income households might pay an extra £230 to £350, a smaller share of their income. NEF recommend protections for low income high usage homes.[58]

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[54] "Exploring Options for Improving Energy Bill Equity for Fuel Poor Households", Committee on Fuel Poverty, 2025.

[55] Ibid.

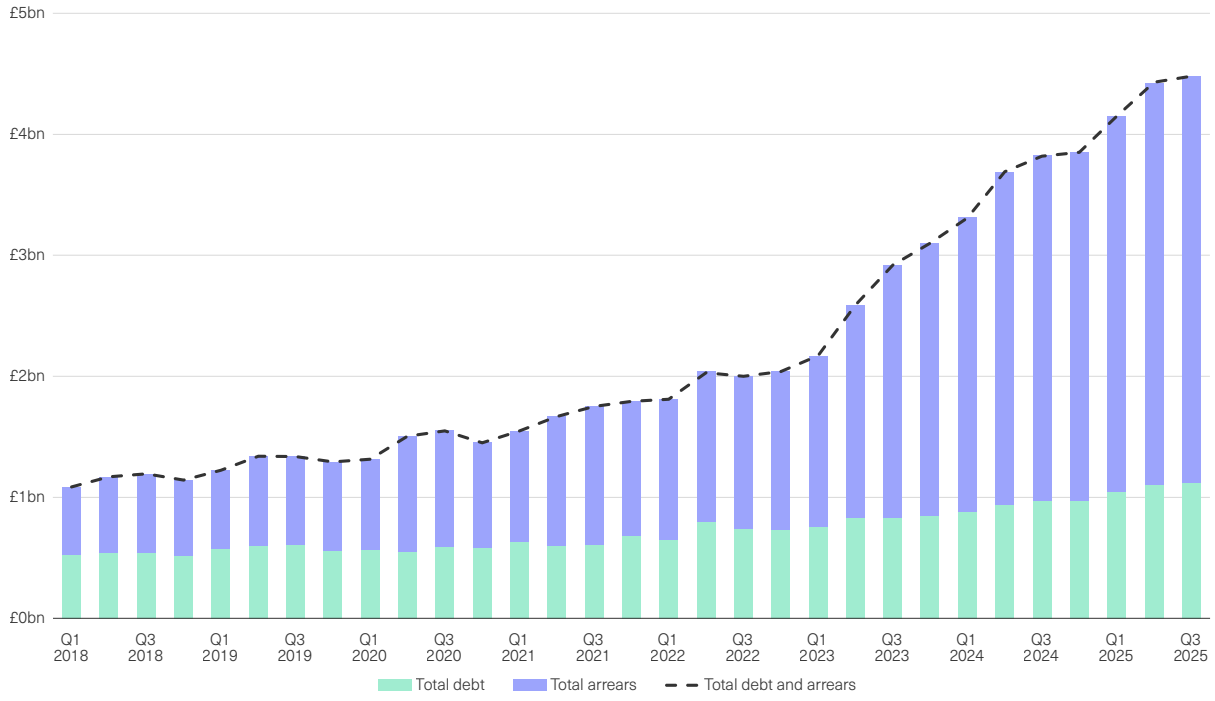
[56] "The Panel's Recommendations for a Social Tariff", Scottish Fuel Poverty Panel, 2023.

[57] Chèque Énergie: Evaluation Report, Ministère de la Transition Écologique, 2023. Changes were made largely for simplicity reasons.

[58] Alex Chapman and Chaitanya Kumar, "The National Energy Guarantee", New Economics Foundation, 2023. Available here.

Figure 5: Customer Debt and Arrears Are Respectively Two and Six Times Their Value Eight Years Ago

Total financial value of domestic consumer debt



Source: Ofgem, December 2025.

Can the current market fix it?

Non-payment and debt is a problem whether you have a competitive retail energy market or not. In a competitive market, however, the expansion of consumer debt poses special problems for retail energy companies, which can affect resilience and further distort how the market operates.

Lump sum payments are administratively the most straightforward, are already compatible with the retail market, and can be applied across all qualifying homes regardless of supplier. The Government's recent extension of the Warm Homes Discount shows a continuing preference for simple methods to deliver support despite targeting problems.[59]

For unit rate discounts there is more administrative complexity. New tariff structures need to be developed and offered to qualifying homes. Changes in income cannot yet be automatically tracked and would rely on self-declaration. Though more

[59] Amy Norman, Scott Corf, Ines Wittke and Jordan Southwell, "Closing the fuel poverty gap: A plan for targeted energy support", Public First, 2025. Available here.

barriers exist, unit rate discounts could be applied in a competitive market without structural change if the costs are recouped universally either on bill or via taxation.

Rising block tariffs (RBTs), however, are particularly complex to implement with supplier switching. Higher-usage homes would be incentivised to find suppliers with as few low-income consumers as possible, to subsidise fewer homes with their own bills.

To mitigate this Joseph Rowntree Foundation proposal that Ofgem would need to implement a cross-market reconciliation mechanism to equivalise supplier profiles.[60] While there is strong evidence that RBTs are effective at lowering high usage demand, there are no extant examples of RBTs existing alongside full retail competition other than as transitional arrangements.[61]

In summary, block payments and unit rate discounts are compatible with the current retail energy market. While a rising block tariff may achieve substantial fuel poverty reduction, be more progressive than other options, and be compatible with incentivising overall demand reduction, it would need heavy regulation alongside supplier switching.

Proposals for unit rate discounts and rising block tariffs are also complicated by a shift from 'flat' pricing structures to a system which charges for 'when' we use electricity as well as how much we use (i.e. peak pricing/low prices at weekends).[62] As more renewable energy is added to the British energy system, we can expect wider variations in price and the ability to charge customers for peak price periods or reward them with lower tariffs in low price periods.

Evidence from Spain shows that unit rate discounts could be made to work with time of use (ToU) pricing.[63] Evidence from China shows that Rising Block Tariffs can also be compatible with ToU.[64] However this research found no examples of mixed ToU and RBT tariff structures in liberalised markets, i.e. with established supplier switching.

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[60] Tilly Cook and Andrew Wenham, "Energy affordability: how to reduce bills for majority of households", Joseph Rowntree Foundation, 2025. Available here.

[61] "Advancing retail competition in the EU: Italy's termination of protected tariffs", HEPI, 2024. Japan has market liberalisation but with poor switching rates and many have elected to remain on regulated tariffs.

[62] "EUK Explains Market Wide Half Hourly Settlement", Energy UK, 2024. Available here. "What is Power Saver and Half Price Weekends?", Scottish Power, 2025. Available here.

[63] Energia Responsable, "What is the Electric and Thermal Bonus", 2023. Available here.

[64] Boqiang Lin, and Tianxu Lan, "Progress of increasing block electricity pricing policy implementation in China's first tier cities and the impact of resident policy perception", *Energy Policy*, 2023, vol. 177, p. 113544.

How would Regional Energy Boards solve it?

Bringing all households in a region under one supplier enables REBs to implement different forms of social tariff without the complicating factor of retail supplier switching.

We find the block tariff model compelling, it reduces fuel poverty, disincentivises high demand (EVs and heat pumps) and incentivises microgeneration and storage. At the same time, it may be outdated quickly if ToU or peak capacity becomes as consequential as volume of use, and where higher electrical demand from shifts to electrification of transport and heat could be disincentivised. If we want to pursue more innovative forms of social tariffs like RBTs, we would likely need to end supplier switching.

Table: Fuel Poverty Policies and Retail Regime

Policy	Advantages / disadvantages	Precedents	Compatibility with ToU	Compatibility with liberalised retail markets
Debt relief	Deals with social harm but increases propensity to free ride.	Ofgem's debt repayment matching pilots.	High – ToU unaffected.	Existence of excessive debt harms market functioning.
Lump sum	Administratively simple depending on eligibility. Could be ignored as an energy measure if not "on bill".	Warm Homes Discount.	High – ToU unaffected.	Yes.
Unit rate discount	Administratively complex; recoup costs universally via bill/taxation; changes in income.	France's chèque énergie; Scottish Fuel Poverty Panel recommendations; prior GB tariffs.	Spanish precedent shows ToU and unit rate discounts can be compatible.	Yes.
Standing charge shift to unit	Advantages low unit volume users and rewards energy demand savings; punitive for low-income high users.	Standing charge reform is live in the GB market.	High – compatible with charging more at "peak" times.	Yes.
RBT	Suppliers would chase high-income; cross-market reconciliation is complex.	Multiple precedents in regulated systems.	Chinese precedent for ToU and RBT in co-existence but further complicates provision.	No examples in fully liberalised markets; would require cumbersome regulation (even more if with ToU on top)

Problem Three: We Have Split the Organisations Responsible for Decarbonising Homes

We are trying to deliver smart clean energy through retailers and energy efficiency schemes through local governments — this stops us creating whole home solutions. Being able to switch supplier limits the ability of an energy provider to create long-term financing options for smart energy and energy efficiency "on bill". Outside supplier switching REBs would have all consumer bills on an ongoing basis and could innovate tariff deals based on energy services and performance.

Fragmented institutions, fragmented outcomes

Energy efficiency schemes for lower-income British households have largely been delivered through retail energy suppliers. While these schemes have delivered measurable benefits such as improved insulation and financial support, their implementation record is uneven. Delivery is fragmented across suppliers, with variable quality and oversight. Recent failures in solid wall insulation under and Energy Company Obligation (ECO4) and Great British Insulation Scheme (GBIS) have drawn criticism, with reports of damp, mould, and structural damage in affected homes.

In January 2025, Ofgem suspended 39 installers due to poor workmanship and compliance breaches. Following this, in early November 2025 government research showed most solid wall insulations under ECO4 had failed and promised to take on the cost of repairing the works.[65] In the November 2025 Budget it was announced that ECO would cease and a £1.5 billion capital investment scheme would be delivered through the public sector delivered Warm Homes Plan.[66]

[65] "Solid wall insulation installed under ECO4 and GBIS: Statistical audit results", Department for Energy Security and Net Zero, 2025. Available here; "Solid Wall Insulation Update", Money Saving Expert, 2025. Available here.

[66] "Strong Foundations, Secure Future", HM Treasury, 2025. Available here.

Why the current market cannot fix it

The UK government has recognised that the corporate energy retail business model is not well equipped to manage infrastructure-heavy programmes of social policy delivery. The involvement of retail energy companies to date is instead a fiscal strategy: by embedding costs in consumer bills, government avoids direct public expenditure and the self-imposed constraints of public sector borrowing. This approach shifted financial and operational burdens onto suppliers and consumers.

The Warm Homes Plan announced that it would put our city regional tier of government (Mayoral, Combined and Strategic authorities) "in the driving seat" of fabric improvements to homes.[67] Because there is already substantial provision across local government for energy efficiency retrofit, a new Warm Homes Agency will be established to build on the successes of area-based delivery.[68] This creates a split between the retail relationship consumers have with their energy supplier (which includes ToU and smart tariffs, future EV deals and solar and battery deals), and the incentives for energy efficiency which will be delivered by their local governments.

How would Regional Energy Boards solve it?

As part of this Public Power Series by Common Wealth we are proposing 30 regional Home Improvement Corporations along the boundaries of Mayoral and Combined Authorities.[69] HICs would speed the delivery of the Warm Homes Plan, using directly employed labour to deliver a once in a generation home upgrade programme, going beyond energy only improvements into tenant protections and finance packages available to all homes.[70] This area-based implementation tracks current government direction by targeting lowest income areas first and delivering improvements across neighbourhoods with the highest deprivation.

At present, though, there is a disconnect between the organisations who will deliver the Warm Homes Plan and the retail energy market through which savings should be realised. Lower-income areas with lower overall educational attainment are least likely to be fully engaged with the energy market. This means when an area-based retrofit scheme does happen there is no direct link to the resident's energy

[67] "Families to save in biggest home upgrade plan in British history", Department for Energy Security and Net Zero, 2026. Available here.

[68] "Warm Homes Plan", Department for Energy Security and Net Zero, 2026. Available here.

[69] Donal Brown and Mathew Lawrence, "Public Power: Towards a New Social Contract for the Cost of Living Crisis", Common Wealth, 2026. Available here.

[70] Madeline Pauker and Donal Brown, "A Plan for Places: Transforming Housing and Lowering the Cost of Living through Home Improvement Corporations", Common Wealth, 2026. Available here.

bills. Similarly, if heat pump installations are not matched with the correct advice and guidance for recipients, then bills can rise even after efficiency measures. At present the fabric improvements can be completed and handed over with tariff advice, but it remains the ongoing responsibility of the resident to select the right tariff for them matched to their new energy technologies and consumption patterns. For those with solar and storage or other flexible technologies this can mean finding and retaining different forms of certification to benefit from dynamic tariffs or export payments.

Regional Energy Boards could closely complement the Warm Homes Plan by removing the responsibility of homeowners to match tariff deals in the open market with new energy technologies or retrofit measures. Instead, where area-based improvements take place, all residents in an area can be automatically and permanently matched to compatible tariffs.

Regional Energy Boards and ESCO options

Regional Energy Boards can also start to offer an energy business model that has hitherto been impossible under supplier switching. That is the Energy Service Company (ESCO) model An ESCO model charges consumers a fixed fee for the provision of useful energy services.[71] If the company can deliver all the energy services cheaper using solar, batteries and insulation measures, for example, and do so by spreading the cost and savings over 10-15 years, then the customer gets lower bills and clean, flexible technologies get deployed faster.

In a competitive supply environment retail energy utilities cannot offer bundled, 'on bill' financing of smart generation, efficiency or appliances because the consumer could switch supplier at any time. While some appliance/microgeneration EV tariff deals do exist, they separate the energy bill and the technology finance, *or* they take the risk that consumers will switch. This was the model operated by challenger brand Tomato Energy, which offered 10 year fixed bills and attendant solar and storage solutions, but exited the market in 2025 with consumers ported to British Gas under the Supplier of Last Resort Mechanism.[72] Octopus are taking a similar risk in the Zero Bills Homes approach for new build, but benefit from the ability to absorb that risk.

Neither of these are full ESCO relationships because to make energy service contracting work for domestic homes a long-term supplier relationship is necessary

[71] Stephen Hall and Katy Roelich, "Business model innovation in electricity supply markets", *Energy Policy,* 2016, vol.92, pp.286-298.

[72] "Ofgem appoints British Gas to take on customers of Tomato Energy", Ofgem, 2025. Available here.

and this is only possible either through very long contracts which are not part of current market structure or in a situation where supplier switching no longer exists.

What about Octopus?

The most successful utility in the market has done more to bring innovation and new customer offers to the table than most other utilities combined. Octopus has created Zero Bill Homes for new build, Tennant Power for solar on social landlord properties, bundled EV lease and smart charging deals and tariffs, similar heat pump and solar + battery packages. Octopus has also improved customer service journeys. Their presence is a net positive in the retail market.

Is the existence of one high-performing company a sufficient justification to assume the next twenty years of competitive energy markets will be overall more positive than the last twenty? Does the existence of one high performing company eliminate the five structural problems identified here, i.e. the lack of a functioning market, the inability to innovate social tariffs, the schism between fabric improvements and bill savings, the “dogfight” of competition (below) where winners win and losers lose, and the incompatibility of national utility business models with local and regional energy priorities? Is there now a danger, in a reconsolidated retail market, that suppliers use complex supply license conditions as a “moat” to defend against and gatekeep wider competition?

What form might the more innovative companies currently in our retail supplier landscape take if they did not have to manage individual customer accounts, social programmes, and supplier switching?

REBs do not stop innovative companies creating new products, technology bundles and platforms. Instead, they eliminate the need to only create solutions for a fraction of high-income high-engagement homes. Innovative companies can then create solutions for all customer types and REBs can choose to buy these solutions from a wider pool of providers than six corporate utilities.

A move to REBs is not a brake on innovation, it is a redirection of effort for digital and smart energy services and electrification designed to benefit more households than the current retail market is able to effectively serve.

REBs complement over £15bn of government spending in the Warm Homes Plan and could offer ESCO relationships and tariff innovation linked directly to area-based and/or consumer-facing retrofit schemes. This would offer options for those homes which do not qualify for fully grant funded installations to part-fund measures through a mix of on-bill and off-bill financing.

The short history of council-owned energy retailers — Robin Hood Energy and Bristol Energy —demonstrated (alongside a wider group of supply market exists between 2019–2021) that anything other than a large corporate utility is ill equipped to survive the British retail energy market. However, Bristol Energy did attempt to run a "heat as a service" trial, the first in the UK selling energy services (thermal comfort) and creating heat plans for homes with a view to providing a new route to market for low carbon technologies.[73] While the risk of exposing municipal finances to a competitive energy market resulted in tens of millions being lost by the Council,[74] hindsight (and Figure 2) shows *almost all* smaller independent suppliers between 2020–2021 exited the market regardless of their final ownership structure.

There are three lessons for REBs:

1. That the first UK supplier to try a full domestic ESCO trial for heat was municipally owned and sought new ways to bundle services to extend retrofit options to a broader market.

2. It is the rules of the market which often constrict innovation not the existence or otherwise of private ownership and/or competition.

3. That the energy market is volatile, protections offered by regulated prices may reduce some of this risk, but majority public ownership with minority shares available to municipals and/or citizens would shield critical service budgets from future price spikes. Each of these risks would be minimised further without retail competition.

Regional Energy Boards as a single retail energy supplier managing the metering, billing and tariff design for everyone in a region can expand the space for business model innovation rather than closing it down. They could implement a wider variety of customer-facing business models and partner with a wider range of private innovators with a static consumer base. This is much more likely to extend the benefits of low carbon technologies and smart energy tariffs across society than the current model — as problem four sets out structurally preferences affluent, engaged homes.

[73] "Bristol Energy becomes first supplier in the UK to trial 'Heat as a Service'", Energy Systems Catapult, 2019. Available here.

[74] "Bristol Energy: Apology after loss-making energy company sold", *BBC News,* 2020. Available here.

Problem Four: We Are Competing Against Each Other

> ...here's the thing about any competitive market. Its combative. It's rivalrous and exclusive. To 'win' one must out-jostle rivals, outwit counterparties, and lock-in benefits to the exclusion of others. Competition is a dogfight.[75]

In a competitive market, it is not just companies competing for our custom, instead, we have to compete against each other for better deals. Retail market competition is a fight that we have no choice but to join. There will be winners and losers.

For consumer goods, this is acceptable because we have an option on whether to consume them or not, we can share them, buy them second-hand, repair them or go without. Energy is not the same, we cannot choose not to be in the energy market. Every home needs a certain amount of energy to attain a socially acceptable standard of living and in the British system we have no choice but to buy this from licensed private companies.[76]

Competition rewards the already advantaged

Ron Ben-David shows how the regulatory narrative around customers in this market is moving from one where consumers are framed as 'shoppers' competing for deals, to 'traders' with assets to sell or flex.[77] The "shoppers" period applied between 1998 and 2023, when the nature of the competition between consumers was simple,

[75] Ron Ben-David, "Reforming and Re-forming the consumer electricity market", SACOSS Energy Forum presentation, Adelaide, 2025.

[76] "A Minimum Income Standard for the United Kingdom in 2025", Joseph Rowntree Foundation, 2025. Available here.

[77] Ron Ben-David, "Reforming and Re-forming the consumer electricity market", SACOSS Energy Forum presentation, Adelaide, 2025.

and yet there were still multiple instances of retail energy companies overcharging inactive customers and cross subsidising active ones.[78]

Even during the simple "shoppers" period, the regulatory "patches" that have been placed on the retail market have culminated in a supplier licensing regime running to over 600 pages specifying almost every aspect of the retailer-customer relationship.[79]

As we add smart meters, electric vehicles, solar, battery storage, smart home systems, smart heat pumps etc to our homes, we are no longer passive consumers. Instead, we become (or are invited to become) "micro-entrepreneurs" of energy, each of us with something of value to trade. Homes with solar and different forms of storage (i.e., EVs, home batteries, stored heat) can benefit from self-consumption and offers in the retail market which include export payments, ToU tariffs and shifting demand to cheaper times of day.

Repeated studies have pointed to a worrying trend in domestic low carbon technology adoption which suggests wealthier more engaged homes will always out-compete poorer homes, they will have newer EVs, bigger batteries, and smarter appliances. A retail energy market makes this problem worse because the bigger and smarter the assets, the more benefit they get from flexing and the more affluent households capture the available value.[80] Nesta recently observed that ToU tariffs are being accessed almost exclusively by "Tech Affluent Homes", who have the means to purchase and optimise heat pumps, EVs and home storage technologies.[81] Studies from the UK and elsewhere show higher incomes and/or accumulated capital and financial savings lead to higher adoptions of smart, clean domestic energy technologies, and higher capability to benefit from dynamic tariffs.[82]

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[78] Competition and Markets Authority, "Energy Market Investigation Final Report", 2016; "Renewing the ban on acquisition only tariffs (BAT) after March 2026", Ofgem, 2025. Available here.

[79] Electricity Act 1989, Legislation.gov.uk; "Standard conditions of electricity supply licence", Ofgem, 2026.

[80] Hall et al., "Matching consumer segments to innovative utility business models", *Energy Policy;* Aman Gaur, Mariana Islas, Sarah Jones, René Narváez and David Paillasa, "The social and distributional outcomes of digitalisation in the UK retail energy market in 2025", London School of Economics, 2025. Available here.

[81] "Tech affluent households are starting to make use of time of use tariffs", Nesta, 2025. Available here.

[82] Carl Tidemann, Nicholas Engerer, Francis Markham, Bruce Doran, and John Pezzey "Spatial disaggregation clarifies the inequity in distributional outcomes of household solar PV installation", *Journal of Renewable and Sustainable Energy*, 2019, vol. 11(3); Nazmiye Balta-Ozkan, Julide Yildirim, and Peter Connor, "Regional distribution of photovoltaic deployment in the UK and its determinants: A spatial econometric approach", *Energy Economics,* 2015, vol. 51, pp.417–429; Toby Bridgeman, "Changes to the energy policy landscape and potential impacts on Scotland's consumers: Distributional impact modelling", ClimateXChange, 2020. Available here; Anne Owen, Lucie Middlemiss, Donal Brown, Mark Davis, Stephen Hall, Ruth Bookbinder, Marie Claire Brisbois, Iain Cairns, Matthew Hannon, and Giulia Mininni, "Who applies for energy grants?", *Energy Research & Social Science*, 2023, vol. 101, p. 103123.

Why the current market cannot fix it

If we keep the retail energy market as it is, private suppliers will have a high incentive to secure flexible "tech-affluent" consumers who can generate, store and flex their home energy to tune their own supply market position in near real time and respond to market signals.[83] As market signals become clearer (a "spikier" market where the wholesale cost of power becomes more volatile, more often) there will be increasing rewards to tech affluent households, for example EV owners being incentivised and able to charge for free during negative price periods. Those who remain disengaged from the market and/or excluded from buying technologies needed will not benefit. Low engagement, less affluent consumers risk subsidising smart tariff offers cutilities can use to acquire new more affluent homes. We risk smart home energy becoming a [further] driver of economic inequality in Britain.

It is not the case that the ability to switch supplier is responsible for this. It is quite common for such dynamics to exist in regulated markets. Some call for an even more competitive and innovative energy supply market where households can have more than one supplier for their different smart energy technologies.[84] While there is an innovation case to be made here, it must be made in parallel with an energy justice case, as split metering will continue to preference ever faster and more integrated flexibility, larger assets and more engagement.[85]

One response to the growing inequalities outlined above is that "early adopters" are being rewarded and that as smarter technologies proliferate, they will come down the cost curve and be more available to more people, limiting negative distributional impacts. Is this naïve when set against the context of an evolving and dynamic combative market for smart contracts with our utilities?

The benefits of dynamic tariffs are a *moving horizon*. More affluent homes will continue to be able to out-trade and lock in benefits to the exclusion of others. They will have newer EVs, bigger batteries, and smarter appliances; more and more digitally enabled clean energy assets in the home.[86] Again, this might be acceptable

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[83] Gaur et al., "The social and distributional outcomes of digitalisation in the UK retail energy market in 2025". Some even suggest tech affluent households with AI enabled devices may already be "out trading the trader" and optimising their assets to the disbenefit of utilities who get their flex pricing wrong, already leading to some flex deals being made less attractive. See here.

[84] Nicole Watson, Gesche Huebner, Michael Fell, and David Shipworth, "Consumer preferences for business models with multiple electricity suppliers: Online choice experiments in the United Kingdom", *Energy Research & Social Science*, 2024, vol. 109, p. 103403.

[85] Dawson, Cook and Hughes, "Future of energy retail", Nesta; Gaur et al., "The social and distributional outcomes of digitalisation in the UK retail energy market in 2025", LSE.

[86] "Beyond Tariffs: GB household flexibility market monitor", LCP Delta, 2025. Available here.

for optional consumer goods, but energy is not optional, and 25 years of experience with (relatively simple) retail energy markets has taught us they are likely to exacerbate inequality. What makes us think this newest evolution will be any different?

How would Regional Energy Boards solve it?

REBs would be free from the competitive pressures to acquire and retain profitable customers either those with flex assets to trade or those who can subsidise others through inaction. REBs could design low-carbon and smart energy adoption deals which better serve different socio-economic segments of society. Here are two examples.

Between 2022 and 2024, Oxfordshire County Council in partnership with SMS Metis launched two complementary services as part of a Department for Energy Security and Net Zero (DESNZ) funded trial under the Alternative Energy Markets Innovation Programme.[87] The first was an Energy Saver App (Figure 8) which drew on smart meter data on people's homes which could then be converted into bespoke energy advice and savings. The second was a solar subscription service which was designed to offer a no upfront cost route for homes to access solar generation and battery storage.

The trial was a success. "More than 9,000 residents downloaded the Energy Saver App, with around 73 per cent engaging every week. Two-thirds of those offered solar and battery subscriptions chose to proceed, compared with an industry average of about 10 per cent. Average annual household savings reached £375, along with measurable reductions in energy use and carbon emissions." Oxfordshire County Council staff put the success down to five ingredients that made this work: "1) Generate interest: meet people where they are, through local communication channels and community networks. 2) Provide end-to-end support: guide residents through every step of the process, from engagement to optimisation. 3) Make it affordable: use simple financial models that open retrofit to everyone, not just early adopters. 4) Make it easy to understand: communicate clearly, using personalised data that residents can trust. 5) Build trust: combine transparent advice, council endorsement, and supplier-agnostic delivery so residents know the offer is credible."[88]

[87] SMS is an established market actor providing smart metering services but is not a licensed retail supplier. Alternative Energy Markets Innovation Programme Phase 2 Projects, Department for Energy Security and Net Zero, 2024. Available here.

[88] Dale Hoyland, "Our not so secret recipe for retrofit: how we worked with Metis by SMS to turn Net Zero ambition into local action", 2026. Available here.

Example two is Hackney Light and Power's partnership with Emergent Energy, which overcame the retail energy market's atomised, supplier-centric framework and has failed to enable rooftop solar for residents of flats. Retail regulation treated flats as isolated metered households and offered no route for communal self-consumption. Emergent Energy navigated Ofgem's regulatory sandbox process and secured derogations to permit microgrid metering and charging[89]. Meanwhile, Hackney Light and Power (with Hackney Council) provided municipal asset ownership, billing infrastructure and community finance, raising £600,000 via community municipal investment,[90] to deliver a no upfront-cost solar tariff. Together they bridged regulatory and market gaps, preserving supplier competition while enabling collective access to solar and projected circa 20 per cent bill savings across dense urban housing stock.

These are examples of the economies of scope available to municipal partnerships seeking to extend the benefits of clean energy adoption beyond (affluent) early adopters and using trust and community networks to do so. The Oxfordshire case was built to be 'supplier agnostic' i.e. to work within an environment where residents could still switch suppliers/tariffs. In the Hackney case, buy-in from a single licensed supplier is still needed and there is a risk tenants could shift away and lose savings. If Hackney Light and Power were partnered with (or co-owners in) a REB then this risk would be eliminated. Also note the presence of innovative community finance for local capital raising.[91] What more could be achieved by REBs combining local trust with certainty they will be serving all metering and billing points in a region?

[89] "Regulatory Sandbox: Emergent Energy Systems Ltd – 2023 Decision", Ofgem. Available here; "Sandbox derogation from the Balancing and Settlement Code", Ofgem, 2022. Available here.

[90] Mark Davis and Laura Cartwright, "Financing for Society: Assessing the Suitability of Crowdfunding for the Public Sector", University of Leeds, 2019. Available here.

[91] "Hackney Green Investment", Abundance Investment, 2024. Available here. Mark Davis, "Community Municipal Investments: Accelerating the Potential of Local Net Zero Strategies", Innovate UK, 2021. Available here.

Problem Five: The Current Retail Energy Market Does Not Support Local Energy

The move towards decentralised local energy systems is a radical departure from what the liberalised national retail market was designed to handle. The current market impedes the planning and development of such systems in three ways:

- The supplier licensing codes designed to create and regulate a level playing field of supplier-consumer relationships are unsuited to smart local energy systems (SLES) characterised by multi-directional trading between all manner of entities.
- Suppliers operating mainly through tariffs struggle to secure from their customers the kind of locally specific consumption flexibility needed to relieve increasingly acute local grid constraints.
- The proliferation of "planning" blueprints by different entities is vanishingly, unlikely to realise their highly specific designs in the absence of a coherent institutional vehicle.

National retailers local priorities

As smart meters and distributed energy technologies proliferate, they can be integrated into smart local energy systems (SLES) that optimise those assets collectively. Most SLES trials in the UK so far do not challenge supplier switching and have had to design technical solutions that leave market structures intact.[92]

Despite demonstrating the technical feasibility of smart local energy systems, SLES trials have not found replicable and scalable business models because these revenue streams accrue to multiple parties, between DNOs, householders, aggregators and suppliers.[93]

Further synthesis of SLES experience to date finds that unlocking the potential of smart energy places needs regulations to be updated to allow for peer-to-peer

[92] "Project LEO Final Report: A digest of key learnings", Local Energy Oxfordshire Partnership, 2023. Available here.

[93] "Industrial Strategy Challenge Fund: Prospering from the Energy Revolution – Final Evaluation Report", Ipsos & Technopolis Group, 2023, pp.78-79. Available here.

energy trading on the public network and for local generators to sell energy directly, as well as to create a market at distribution level including for flexibility services.[94]

Why the current market cannot fix it

The regulations frustrating SLES are those governing supplier licensing. They exist to make the retail market work, to ensure each consumer has one supplier for electricity and usually gas and cannot themselves trade their own generated energy without the involvement of one licensed supplier unless it is done under a series of derogations which themselves act as barriers to scale.

It is not only peer-to-peer trading of energy that is limited by the regulations enabling supply switching. The ability of other parties such as the distribution network operator to make contracts with aggregators or directly with consumers is also frustrated by having to work outside consumers' familiar energy bills. This drives up the costs of flexibility by increasing transaction costs between parties.[95] What is needed to allow local energy systems to thrive is a single billing entity that can account for all the different flows of value and resolve them on one energy bill to all consumers in a region. This cannot proceed in a market where all domestic parties can switch supplier at any time.

Solving Grid constraints locally goes beyond consumer bill savings

The retail energy market also makes it difficult to use local grid infrastructure efficiently. Local grid constraints have become a significant barrier to local economic development and housing starts, adding tens of thousands of pounds per home and years of delay to new developments.[96] If we want consumers to aid in relieving local grid constraints by flexing their demand, retailers will need to either incentivise this through their bill or automate it.

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[94] Euan Morris and Rebecca Ford, "Unlocking the value of energy-smart places", EnergyREV, 2023. Available here.

[95] Colin Nolden, Nick Banks, Jack Irwin, David Wallom and Bryony Parrish, "The economics of flexibility service contracting in local energy markets: A review", *Renewable and Sustainable Energy Reviews*, 2025, vol. 215, p. 115549.

[96] Dan Nicholls, "The Capacity Crisis: A Structural Barrier to Housing Development in the UK", *Housebuilder Magazine*, March 2025.

Why the current market cannot fix it

On bill rewards for locally needed flexibility are impossible when a series of six national retail suppliers dominate the market and do not respond to local network constraints. Even if retail suppliers did offer tariffs that responded to local grid constraints, DNOs cannot rely on the flexibility being there in future years if consumers exercise their right to switch supplier or those companies exit the market.

If we want consumers to flex their demand to optimise the local grid without payment, there are plenty of models available. Nobody gets paid for obeying the speed limit on a managed motorway and this is a similar situation of collectively managing constraint. Nobody gets paid for being particularly good at household recycling and this demands a shift in household behaviours. We do these things because we recognise a collective good. It is however unlikely that consumers could be asked to behave this way towards privately owned and profit-extracting grid companies. Public ownership would be a necessary precondition for collective automatic demand management and REBs could begin this work, though grid ownership questions immediately follow.

Local energy planning needs more than just more planning

In recent years local and regional energy planning has grown in importance and sophistication, from the connections focussed Regional Energy Strategic Planning to the adoption of Local Area Energy Plans.[97] Both processes require deep involvement from local governments in providing information and communicating strategic priorities. Regional energy planning includes LEAPs RESPs and DNO planning. Each replicates various processes but with limited scope to deliver on any of the strategic priorities identified.[98] Though note the recent Local Power Plan shows GB Energy's desire to deliver through partnerships with local government.[99]

[97] "Regional Energy Strategic Planning (RESP)", NESO, 2025. Available here; Abigail Collins and Alan Walker, "Local area energy planning: achieving net zero locally", Parliamentary Office of Science & Technology, 2023. Available here.

[98] Helen Poulter, Jess Britton, Imogen Rattle, Ronan Bolton, Jan Webb and Peter Taylor, "Accelerating transitions? Planning for decarbonisation in local and regional energy systems", *Energy Research & Social Science*, 2025, vol. 120, p. 103875.

[99] "Local Power Plan", GB Energy, 2026. Available here.

Why the current market not fix it

Local or regional planning of an energy transition is not a useful process if there are no local organisations that have the capacity and scope to deliver on the plans. This mirrors locally what has been observed nationally, that planning is indeed "back" but a version of planning that is being "grafted onto a liberalised system" with no consideration of what made planning work in the past: "vertical integration, operational responsibility, public ownership, paying for infrastructure from general taxation as well as bills, borrowing at the state's cost of capital".[100]

How would Regional Energy Boards solve it?

Regional Energy Boards would have all consumers in a region on supply in perpetuity. Local energy and flexibility tariffs could be designed around local system priorities and national price signals and delivered together. REBs would have full visibility of demand growth and diversity in an area and could use retail relationships to deliver the priorities of local area energy planning. The ability of a single company to have all homes in a region on supply is an enabler of flexibility innovation. Instead of driving innovation, the competitive retail supply market is stalling efforts elsewhere that could thrive if they had a single licensed supplier to contract with. Two examples will help illustrate this.

Energy Local is a model of incentivising more decentralised renewable energy onto the market that local people can buy directly from to satisfy their energy needs.[101] Participants must join an "energy club" and seek to match their consumption with locally contracted generation which is typically offered at a lower price than that which is available on the wholesale market. This model needs a licensed supplier to provide "top up" to consumers when local renewables are not generating and as such depends on the existence of interested licensed suppliers willing to administer small population tariffs.

Many licensed suppliers do not offer this service, which led the community energy movement to support the Private Members Local Electricity Bill which would force all retail energy suppliers with over 150,000 customers to offer Community Electricity Service agreement — "to any registered Community Energy site [...] allowing that site to sell electricity to local consumers".[102] In short, left to its own

[100] Arthur Downing, "The myth of the central planner: Misremembering the CEGB (1958–1990)", *Energy Networks*, 2025. Available here.

[101] Energy Local. See here.

[102] "Local Electricity Bill, Private Members' Bill", Parliament.uk, 2022. Available here.

devices the national retail energy market will ignore consumer preferences for locally generated energy unless regulated to do otherwise. It is not yet clear whether the code modifications supporting the Local Power Plan will be enough to create a new type of local power utility model.

A final example of the ability of regionalised utilities to manage local grid constraints with direct on bill savings is San Diego Gas & Electric's (SDGE) several demand response programmes[103]. SDGE recently used a Summer Saver tariff, installing devices on HVAC units to cycle A/C during peak summer days and support grid reliability. Customers choose different remote cycling regimes for direct bill credit. As a vertically integrated utility, SDGE can apply these bill credits directly to participating customers' accounts.

Regional Energy Boards can take a full system view of an area and determine where local priorities for economic development, housing and infrastructure are being constrained by grid connections and be confident of being able to secure locally meaningful volumes of flexibility through the design of innovative tariffs. They can also support the deployment of clean energy technologies to homes and businesses to expand that flexibility.

There are a multitude of business models ready to catalyse the value of smart local energy systems.[104] However, until the retail supply function responsible for metering and billing is also incentivised to act geographically, and can count on long-term domestic and small commercial contracts, these opportunities will either be left in the "too complicated" pile, or will appeal, once again to only the most engaged consumers.

Regional Energy Boards could become the catalyst for SLES innovation as the rules frustrating local optimisation and flexibility are largely found in the Supply Licence Conditions and Balancing and Settlement Code which enable supplier switching and contain the rules of engagement for consumers energy tariffs. Reforming these around single geographic suppliers would transform the innovation potential of local energy markets.

[103] "Demand Response Programmes", San Diego Gas & Electric, 2025. Available here and here.

[104] Poudineh, "Liberalized retail electricity markets", Oxford Institute for Energy Studies; Hall and Roelich, "Business model innovation in electricity supply markets", *Energy Policy*; "Alternative Energy Markets Innovation Programme Phase 2 Projects", Department for Energy Security and Net Zero, 2024. Available here.

Regional Energy Boards — Fixing the Retail Energy Market Through Economies of Scope

In summary, REBs can solve the five failures of the competitive retail market by overcoming fragmented, consumer engagement dependent approaches with a single institution designed to act at scale in the public interest. The consolidation of social tariffs, flexibility offers and retrofit delivery unlocks economies of scope that a competitive retail supply market cannot access. These include the coordination of whole home improvements, the design of socially responsive tariffs and the integration of local energy planning and asset optimisation. REBs remove the dependence on consumers becoming competitive traders to secure flexibility — they take fuel poverty reduction out of the market and eliminate the structural bias for already advantaged households to keep winning the “dogfight” of competition.

Because REBs can operate across functions rather than competing for a slice of market share, they can be robustly tasked with market fairness, expanding flexibility and supporting partner agencies to deliver area-based home upgrades at pace as part of a coherent regional contribution to the Clean Power Mission.

The benefits and opportunities of flexibility could be pursued for all types of consumers, and the benefits of local flexibility could be delivered by on bill savings. These economies of scope are only possible when there is a geographically focussed single supplier free of the need to compete in what has become a “broken and illusory market”.

Regional Energy Boards build on a familiar model from the British energy systems past, updated for a rapid and more just energy transition. Leveraging economies of scope needs us to look again at the right of all consumers to switch supplier and ask what it *prevents* us from doing, not just how it can be better regulated. Economies of scope need more integration and planning. They need a compatible organisational model and ownership structure in REBs that do not have to compete for domestic and SME retail supply. In the final sections we will consider how Regional Energy Boards may prove relatively quick and cheap to set up in comparison to other proposals such as bringing networks back into public ownership, and how they might come early in the public power journey.

Fast — Setting up Regional Energy Boards can be done quickly

How much would it cost to buy the retail energy companies? In 2022, the TUC estimated the cost to buy the retail energy companies as between £2.75 and 4 billion based on recent share price, recent market transactions or equity book value.[105] Since 2022 the loss-making trend of retail supply businesses has continued, and the failure to attract buyers for some suggests the price tag for all retail consumer accounts could be much lower. The "great exit" cost consumers over £2.7 billion and shoring up failing suppliers prior to market exit also cost billions. For a comparable cost, we would ensure that no such bailout need happen again.

Primary legislation would be needed to end the consumers' right to choose suppliers which are written through the Gas Act 1986 Electricity Act 1989 and subsequent Energy Acts 2011, 2013 and 2023. The Standard License Conditions and Balancing and Settlement Codes would have to be altered to be compatible with a single supplier model. All of these are within the gift of a sitting parliament and within the capability of the UK government to implement.

Establishing Regional Energy Boards does not need to take as long as the overall privatisation and liberalisation of the British energy system because it is an amendment to an administrative function. With prioritisation, REBs could be set up in this parliament and begin taking on consumers in a phased model which reverses the process of 1998, i.e. beginning with domestic meter classifications.

Establishing REBs as a single supplier in a geography would be a tangible experience of a public energy future that does not incur the tens of billions needed to re-nationalise networks and is therefore within the fiscal rules the current government has committed to. If networks were to be re-nationalised, there would be a strong argument for and even fewer barriers to them once again being full regional energy boards with the network and billing function.

First — Regional Energy Boards as a first step towards a public energy system

Why establish Regional Energy Boards as a first step on a public power journey? Most of us do not have a relationship with the wholesale energy market or the distribution network. For a nation that has seen the negative impacts of privatisation

[105] "A fairer energy system for families and the climate", TUC, 2022. Available here.

of critical public services and network utilities, but also has tight fiscal rules, placing the retail energy relationship back into public hands would be a highly visible and tangible outcome within this parliament.

REBs can be delivered with the wholesale market unchanged or with a single buyer model: REBs could be delivered leaving the wholesale market unchanged. In this scenario REBs would enter the wholesale market for power on behalf of all residents and SMEs in their area. All the economies of scope available to REBs still exist if the wholesale relationship remains unchanged. REBs would gain a full picture of demand and supply within a geography and start designing area-based retrofit, heat and transport electrification programmes which best fit local priorities. Enabling legislation should allow REBs freedom to run novel business models such as ESCOs, which allow local optimisation of energy technologies such as heat networks, shared heating systems and finally to reap the benefits of smart local energy systems.

If REBs were to be established in parallel with a single buyer model savings could be passed directly onto all customers totalling £194–£384 annually. These savings would come from the elimination of high and unexpected profits in the wholesale market.

REBs pave the way for intelligent network ownership by regaining a geographic oversight of retail supply and consumer demand. The current network ownership model has been shown to be incompatible with rapid system decarbonisation and the delivery of public value. A move to REBs would pave the way for public ownership of the distribution networks in a piecemeal approach. Where specific local networks are critical for housing starts, local economic development, or the viability of smart local energy systems they should be brought into REB ownership as a strategic enabler of the economies of scope explored in this report. REBs would hold all billing and metering information, they would be able to respond to both national price signals and to local network constraints. With this level of system visibility, the cost case for bringing specific parts of the network back into public ownership could be made much more precise.

Conclusion

The competitive retail energy market has failed on its own terms and is now actively obstructing decarbonisation, innovation, fairness and affordability. Retail competition has produced high costs, consumer disengagement, rising debt and regressive outcomes, while repeated regulatory "patches" have turned suppliers into loss-making administrators of a pseudo-market.

REBs are a response to both the failing retail market, and the need to establish a new social contract around energy. By replacing supplier switching with a single area-based energy board serving everyone, REBs unlock economies of scope that competitive markets cannot. They can design tariffs for social need rather than market share, they can support whole home retrofit, and they can coordinate flexibility to meet both local and national needs.

Our exploration shows that domestic supplier switching was never a cornerstone of privatisation and liberalisation. Rather it became an unquestioned feature of the system, more consumer choice and more supplier competition became a means without an end. Retail competition may have done more to frustrate innovation in the delivery of net zero and the reduction of fuel poverty than it has enabled.

Because REBs can be established quickly and at a low cost, they can transform the most tangible relationship the public has with energy in this parliament. Because they will have unique visibility of local demand and generation, they will enable a more precise business case for public ownership of parts of the distribution network. Because they are designed to be compatible with a single buyer model, they can help maximise the savings available from reforming the wholesale market and delivering £300 savings per home promised to consumers.

Establishing Regional Energy Boards is a practical re-set of the turn and response combat that has emerged between energy companies trying to survive and regulators trying to deliver economic, social and environmental outcomes at arm's length. We have made a positive case for change based on re-establishing and evolving an organisation that we have seen before, Regional Energy Boards with the mandate and capacity to pursue economies of scope and deliver public value across the British energy system.

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Stephen Hall

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Common Wealth is reimagining ownership for a sustainable and democratic future.

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common-wealth.org
info@common-wealth.org