

CORNWALL INSIGHT

CREATING CLARITY



Transforming the energy market: how change will work for consumers

September 2023

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About the report

This report is an introduction to changes in the energy market. It has been written in a way that is easy to understand for people who are not familiar with the topics. Energy is critical to all sectors of the economy, and this report provides a high-level overview of the transformation options and policy decisions that need to be made.

The report focuses on the GB electricity market, which covers England, Scotland, and Wales. Northern Ireland is part of the island of Ireland's Single Electricity Market, and is not considered.

Commissioned by the MCS Charitable Foundation, this report was compiled by the independent consultant Cornwall Insight.

About MCS Charitable Foundation

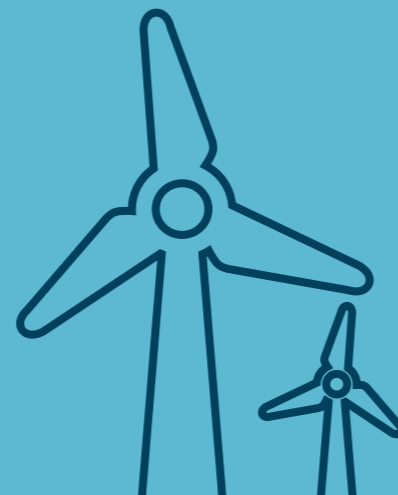
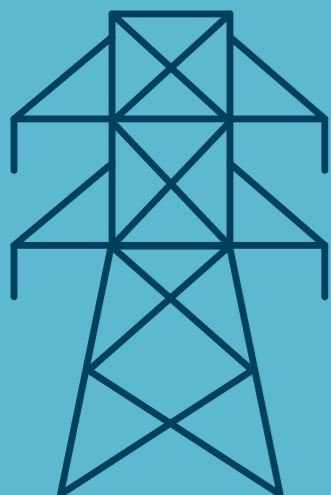
MCS Foundation is an independent UK-wide charity. Our mission is to accelerate the widespread adoption of renewable energy and low carbon technologies. With growing concern about the climate emergency and energy costs constantly rising, the need to advance low carbon solutions has never been greater. We want everyone to have access to affordable and reliable renewable energy – so we can have warm, comfortable homes as part of a resilient, zero carbon future.

About Cornwall Insight

Cornwall Insight provides independent and objective expertise covering the full breadth of the GB energy industry. Our reports and publications will help you keep pace with the fast moving, complex and multi-faceted markets by collating all the must-know developments and breaking down complex topics. We undertake market research and develop insight providing comprehensive appraisals of the energy landscape helping organisations track, understand and respond to industry developments.

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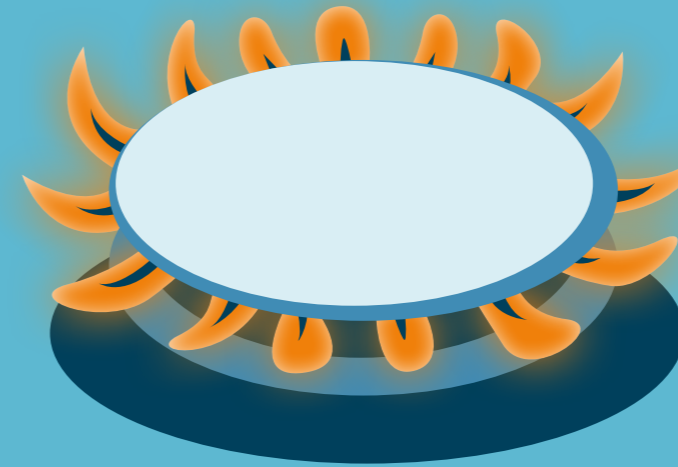


Introduction

Policymakers are being asked to make decisions on energy system reform, vital to ensure bills are affordable in the future

- The energy crisis saw typical household spend on energy over winter 2022-23 more than double compared to previous years.
- Without government intervention, energy bills could have quadrupled for a typical domestic consumer.
- The Independent Review of Net Zero (also known as the Skidmore Review) found businesses support the energy transformation, recognising the opportunity for growth domestically and internationally.
- There is no way to turn back the clock to the pre-energy price crisis world. Across the political spectrum support has emerged for an improved energy system that is fit for the future and will deliver security of supply and value for money.
- Energy is changing. With the right steer this will help ease bills and support the UK economy.

Price cap for the typical domestic consumer



Winter 2018-19 £1,105

January 2022 £4,278

October 2023 £1,923

Source: Ofgem and Cornwall Insight

“If your energy security relies on a volatile fossil fuel market, that leaves you exposed.”

Keir Starmer
Leader of the UK Labour Party

“What we saw last winter must never be repeated. Struggling households unable to pay their energy bills, people unable to top up their prepayment meter, and record numbers coming to us for crisis support.”

Dame Clare Moriarty
Chief Executive of Citizens Advice

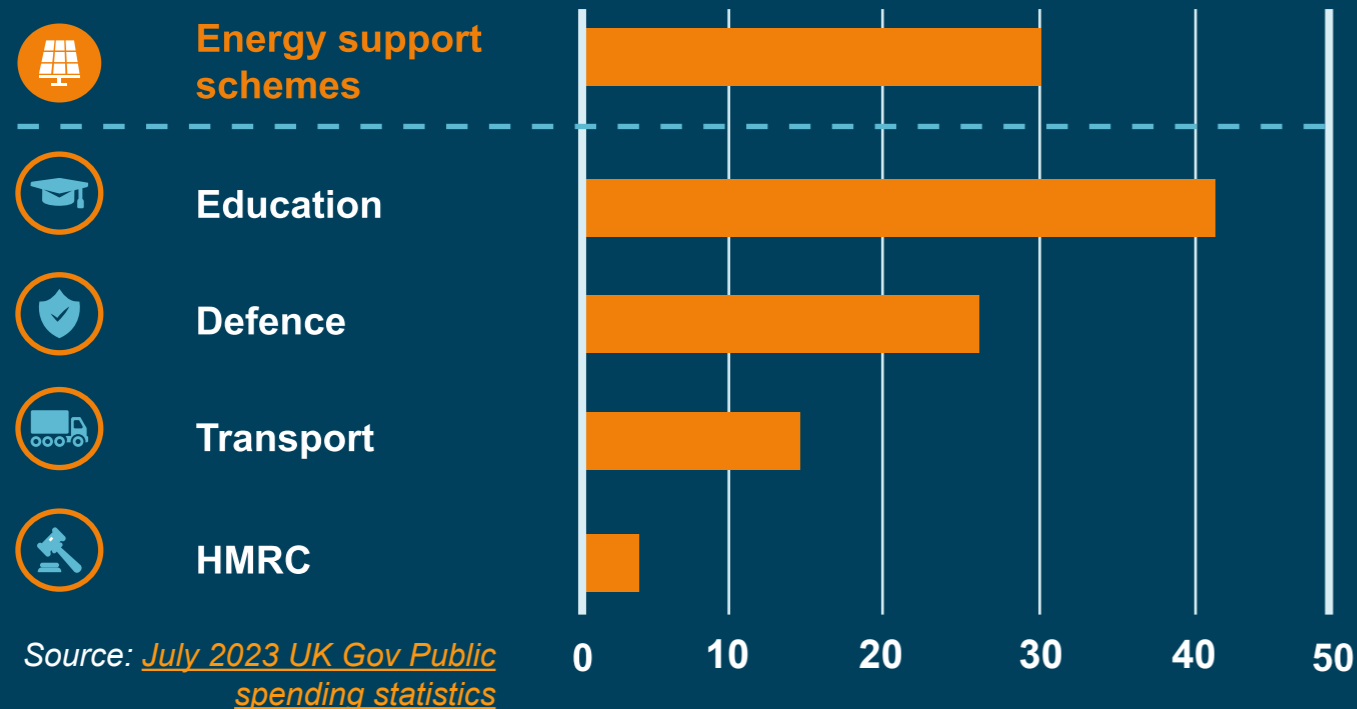
“Affordable and plentiful energy makes businesses more competitive, generating growth, jobs and prosperity. It keeps the cost of living down, and will help bring down inflation.”

Graham Stewart
Minister of State for Energy Security and Net Zero, Conservative MP

Energy bills need to be affordable **for all**

Six months' support for energy bills cost the UK government £30bn

The UK government provided homes and businesses with energy bill support in winter 2022/23. The cost for six months of support was more than some government departments' budgets in the equivalent period (£bn, half-annual Departmental Expenditure Limit).



Even with government support in place, around 60% of adults reported using less gas or electricity in their homes due to cost of living increases², 13mn households didn't switch on heating when it got cold³, and almost eight million people had to borrow money to pay their energy bills⁴.

² Source ONS insights, Oct 2022-Mar 2023 <https://www.ons.gov.uk/economy/inflationandpriceindices/articles/costoflivinginsights/energy>

³ Which? <https://www.which.co.uk/policy-and-insight/article/too-scared-to-put-the-heating-on-13-million-households-not-heating-their-homes-when-its-cold-due-to-energy-bill-fears-which-warns-aXpY84U6BJaS>

⁴ Citizens Advice H1 2023, <https://www.citizensadvice.org.uk/about-us/about-us1/media/press-releases/record-numbers-look-for-energy-debt-before-winter-even-hits-citizens-advice-warns/>

Redesigning the energy system will help secure affordable bills

The prevailing sentiment is that the current market arrangements are not fit for purpose.

The Review of Electricity Market Arrangements (REMA) led by the Department for Energy Security and Net Zero (DESNZ) is underway, aiming to deliver changes to the electricity market that bolster UK energy generation, increasing use of low and no-cost fuel sources.

Good market design will protect future generations from increasingly volatile fossil fuel costs. REMA offers an unprecedented opportunity to reduce pain from future energy bills.

Source: REMA consultation response March 2023 <https://www.gov.uk/government/consultations/review-of-electricity-market-arrangements>



Why energy policies need to change

Energy policy that was effective in the past won't be enough to meet future needs.

The costs underpinning domestic energy bills almost quadrupled in winter 2022-23 compared to historical norms¹.

Current market arrangements are not fit for purpose according to 80% of respondents to the UK government's 2022 consultation on potential reform².

The UK is exposed to volatile global gas markets, and is highly dependent on gas for heating homes, powering industry, and fuelling almost 40% of GB electricity generation. North Sea gas reserves are as now low as 13% of the volumes at the time of the privatisation of the gas sector in the 1980s.

Wholesale energy prices hit record highs due to the war in Ukraine, and exacerbating factors like the reliability of ageing European nuclear reactors, pipeline sabotage, and a restricted global fossil fuel market. Demand for energy is expected to remain high even when peace returns.

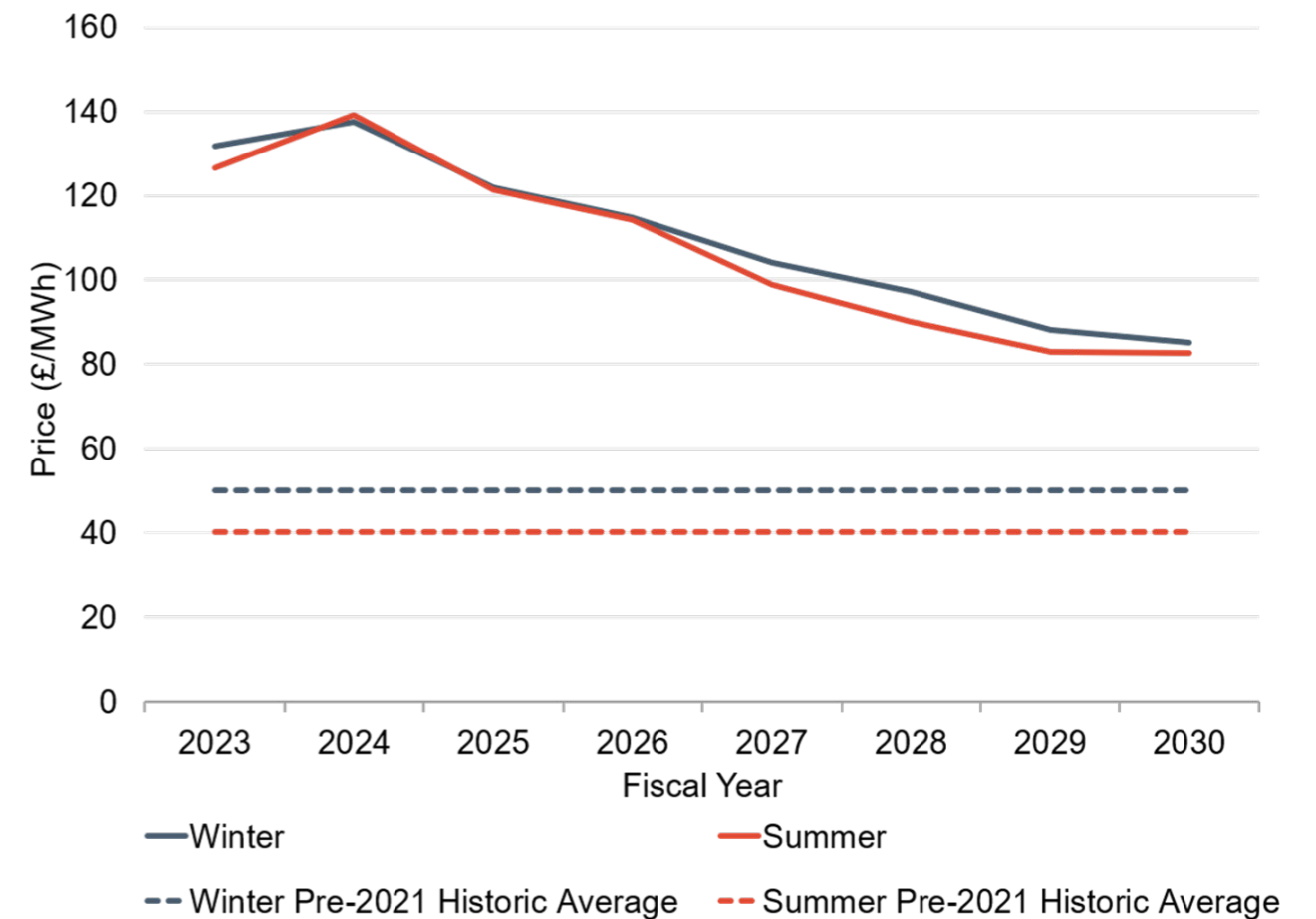
Cornwall Insight's forecasts see wholesale prices staying high and volatile until the end of the decade.

Sources:

1 Ofgem, Price Cap Typical Domestic Consumption Values <https://www.ofgem.gov.uk/retail-market-indicators>

2 BEIS/DESNZ REMA Consultation responses March 2023

Wholesale electricity prices forecast to stay high until the end of the decade



Source: Cornwall Insight Q2 2023 Benchmark Power Curve

This chart is an annual overview of trends for the GB Power Market out to 2030 using outputs from Cornwall Insight's latest Benchmark Power Curve (BPC) for the British Electricity Market covering England, Scotland and Wales. The BPC is a comprehensive price model that delivers long-term power price forecasts, informed by industry-leading regulatory, market and policy expertise, and supplemented with direct access to trusted practitioners. Energy policy is devolved to the Northern Ireland Executive and is integrated with the Republic of Ireland energy grids.

How the electricity system works

Generation

The process of generating electric power from a primary source of generation. GB relies on a variety of generation methods, using different fuels including wind, solar, nuclear, gas, biomass and hydro.

Different generators of power are dispersed across GB, and are often situated near to their fuel source or where is most operationally suitable. However, these sites may not be located near centres of demand.

Networks

Electricity networks, or grids, are the infrastructure that moves power from where it's generated to where it's used - in homes and businesses.

The nationwide grid was established in the 1930s, linking a few large power stations to local electricity systems. Since then population centres have seen significant changes in demand as industry and people moved in and out of the country.

Networks can be thought of as being like motorways ('transmission') and local roads ('distribution').

Suppliers

Contracts with the consumer, acting as the interface, or hub, with the rest of the energy industry. This hub model may develop as more homes and businesses start to export energy as well as take energy from the grid.

Consumer

Transmission

Distribution

System Operator

Ensures there's enough electricity in the grid when and where people need it.



Over time some parts of the network have become congested as more electricity needs to be transported through that area.

Network congestion is one of the reasons it can take a long time to connect new electricity generators to the electricity grid. In some parts of the country, it can take more than ten years for a new factory or housing estate to get electricity from the grid.

The electricity market includes the wholesale trading markets, which allow for the buying and selling of electricity for days, months or years in advance of delivery. The prices paid send signals to companies such as network operators and generators to invest in new assets and infrastructure. Such investment is important in ensuring supply security and easing rising congestion in the electricity network.

A May 2023 report from Regen found that investment in the grid could facilitate a move away from fossil generation and see overall network costs fall on a per unit of energy delivered basis.

<https://www.regen.co.uk/preparing-britains-electricity-network-for-net-zero/>

Consumer impact:

The wires and equipment used to build the network cost a lot to make and install. Making sure upgrades to these parts are done efficiently and in good time helps to keep the cost lower for consumers. Not investing in the grid could be more expensive in the long term as the costs of managing constraints increase.

What makes up an electricity bill?

Electricity bill makeup

Wholesale energy costs: how much a supplier has to pay for the gas and electricity used by consumers.

Suppliers, generators, and other parties trade electricity in energy markets before it is used by consumers. This can range from a long-term bilateral contract five years prior, to trades on the same day as delivery of electricity to users.

GB energy prices will reflect global commodity market conditions. For example, if there is a shortage of gas in Europe, gas prices will probably go up in GB because gas is traded on global markets. Electricity prices will also increase because gas is used to generate electricity.

Network costs: charges to maintain and expand the national and local energy networks.

Policy costs: the costs related to government social and environmental schemes to save energy, help vulnerable people, reduce emissions and encourage take-up of renewable energy.

Supplier costs and profit: Includes operational costs like consumer service, billing, and metering expenses.

Taxes: Domestic energy bills attract a 5% VAT rate, whereas most business pay a 20% VAT rate.

Breakdown of typical annual dual fuel domestic consumer bill October 2023

Wholesale costs	£944	££££
Network costs	£386	££
Policy costs	£167	£
Supplier costs and profit	£278	££
VAT	£93	£

Uses the price cap values for Oct – Dec 2023 for a typical domestic dual fuel credit customer using national average values

Source: Ofgem, Price Cap Typical Domestic Consumption Values <https://www.ofgem.gov.uk/retail-market-indicators>

Consumer impact:

An efficient system allows consumers to share the benefits of lowering costs. Transparent pricing information can help underpin consumer confidence in fairness.



The energy transition is a major economic opportunity for pioneering countries

Countries around the world are facing similar challenges, and investing in infrastructure to support the energy transition. Just as the move from burning fuel such as wood to coal was intrinsic to the industrial revolution, the 21st Century is seeing a trend to more local, flexible, renewable energy systems. Clear energy policy will help businesses and public-sector bodies make investment decisions with confidence.

Clarity from policymakers can create a virtuous cycle: reduced uncertainty leads to a more stable business environment, attracting investment and lowering the cost of capital.

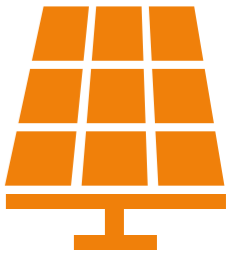
The cost of debt and equity have risen in response to macroeconomic and geopolitical developments, including soaring inflation and interest rates. Globally high and volatile energy prices, and demand for local and secure energy sources, has resulted in supply chain challenges and labour shortages as many countries try to achieve similar transformations.

The US introduced a package of legislation in autumn 2022 to promote economic growth while enhancing energy security by encouraging the relocation of manufacturing and supply chains. Since the introduction of the Inflation Reduction Act and CHIPS and Science Act, \$231bn of investment in climate-friendly tech manufacturing has been announced (equivalent £181bn 15 Aug 23).

The EU is developing an enduring package with a focus on energy independence, in addition to the initial REPowerEU programme of support to 2027 (~€300bn). The German government have approved a further €30 billion for their Climate and Transformation Fund bringing it to €212 billion for the period 2024 through 2027.

The energy transition has the potential to attract significant investment in Great Britain, but market changes will be needed to maximise the potential opportunities.

\$783bn amount the US government authorised to spend on energy security and decarbonisation under the Inflation Reduction Act



\$57tn amount under management by signatories of the UN's Net Zero Asset Managers initiative to support investing aligned with net zero emissions by 2050 or sooner.

Over 90% the amount of global GDP linked to net zero targets.



Jobs supported by the net zero economy typically pay higher than UK average (£42,600 vs £33,400), and already support 840,000 full-time equivalent jobs.

Source: <https://www.jackconness.com/ira-chips-investments> +

July 2023 <https://www.netzeroassetmanagers.org/> +

<https://www.gov.uk/government/speeches/net-zero-economic-opportunities> +

January 2023 <https://eciu.net/analysis/reports/2023/mapping-the-uk-net-zero-economy>

Recent consultation on transforming the electricity system

The UK Government launched a consultation on its Review of the Electricity Market Arrangements (REMA) in July 2022. Through the REMA review, the Government is considering how the electricity system could transform to ensure that it is fit for purpose in the future.

While significant progress towards decarbonisation has been made, there is broad agreement that market arrangements will need to adapt to achieve the energy transformation needed to meet net zero goals and ensure affordability for consumers and maintain security of supply.

The UK is legally committed to achieving net zero emissions by 2050, and has set a target to decarbonise the energy system by 2035. Safeguarding the operability of the energy system during the decarbonisation of the economy will require careful consideration about the impact of complex policy combinations.

An initial consultation on the options under REMA saw respondents “strongly” support continuing to consider incremental changes to wholesale market arrangements, such as amendments to the Contracts for Difference (CfD) scheme. Sentiments on more transformational changes – such as introducing Locational Marginal Pricing (LMP) - were mixed or “divided”.

DESNZ notes that the goals of REMA will be achieved by ensuring “continued investor confidence in our energy system and assets”. A prolonged period of policy uncertainty could result in an investment hiatus, or reduced market competition, as plans are paused pending certainty about return on investment.

Developers may suspend activity until future market arrangements are more certain. Investors with mobile capital are likely to see investment in other countries with more definite policy positions as more attractive.

REMA objectives

Overall value

- Solutions delivered at least cost to consumers
- The ability to participate in the market should be available to all relevant participants, including demand-side and innovative technologies. Increased competition should help to bring down costs

Maintaining investor confidence

- Changes must drive significant investment in technologies and infrastructure needed

Whole-system flexibility

- Incentivise market participants of all sizes to act flexibly where efficient to do so

Deliverability

- The power system is complex and integrated, so changes need to be achievable within this context of multiple integrated parts

Three potential options for change have emerged as the frontrunners

Since the REMA consultation was launched in 2022 three of the options have received the most attention. The options offer ways to resolve different issues with the current system, but also present different risks and drawbacks.

The initial REMA consultation had 33 main options, reduced to 23 following feedback

Key options for reform

Move to zonal or nodal pricing - Current market arrangements mean the market is managed, and wholesale power is traded, on a national level. REMA considers the possibility of splitting the country, moving to a zonal structure in which different zones have different wholesale power markets that trade with each other. Another option is nodal pricing, in which potentially hundreds of different areas are used pricing wholesale electricity. This is the most controversial proposal in REMA, with the potential for cost savings needing to be balanced with the scale of reform needed, for consumers' ability to respond to locational pricing signals (i.e. their willingness to move to a cheaper part of the country to save on energy bills), and investors' reported dislike.

- **Local Balancing** - The task of making sure there is enough electricity could move from a national focus to a more regional basis, so consumers and generators in areas with more volatility in supply and demand would see larger cost variations compared to an area with limited volatility.
- **Move to Central dispatch** – Currently within the GB wholesale market, generators and electricity storage operators decide if they discharge power to the network. REMA is investigating having a central body decide which power stations should run and when.

- **Move to split market, also known as decoupling gas and electricity prices** – Currently, the wholesale market in GB is technology agnostic – wholesale pricing is uniform for all methods of generation e.g. prices for electricity from a gas-fired power plant would be the same as for electricity from a wind farm. Globally high gas prices have driven record high electricity prices. REMA is investigating the possibility of moving to a split market, in which different pricing models will apply to different ways of generating electricity, depending on if they are variable renewable or if they are controllable fossil fuel in nature. This would likely result in renewable energy achieving a lower price. Concerns over availability of electricity in such a market (liquidity), and that it has never been tried before have led to caution. Additionally, as the proportion of electricity generated by low cost renewable sources grows, the impact of gas prices, however high they are, will reduce. A variation of the split market option, called the Green Power Pool, is also under consideration.

- **Incremental reform of the energy system** – Incremental reform in the electricity system would see improvements to existing schemes to achieve a transformation in a less disruptive way. Options REMA is considering include how to pay for flexibility in generation and storage assets, allow more users to benefit from small scale generation, and developing key schemes such as Contracts for Difference which underpin current renewable generation development.
- **Paying generation and storage assets to be flexible**, rather than just paid on the amount of electricity they produce, leading to lower overall system costs.
- **Letting smaller generation and storage assets** have better access to markets, for example domestic scale technology getting paid to support the network at peak times.
- **Amending the Contracts for Difference Scheme**, already responsible for attracting new low-risk low-cost investment into 27GW of UK based generation.

Consumer impact:

There are different, somewhat competing, ideas about how to transform the electricity system into something that works better for consumers. An increase in locational pricing signals, splitting the generation market between renewable and fossil fuels, and incremental change using existing tools are the three main options that have been discussed. All will have implications for consumer bills, but the exact impact will depend on the option chosen and the exact design of reform.

Locational pricing: proposals would affect regions in different ways

Wholesale electricity is currently managed and traded on a national level in Great Britain (GB). This means that a unit of electricity generated in Aberdeen would be priced the same as a unit generated in Windsor.

The REMA programme is considering changes to how wholesale electricity is priced, splitting the country into segments. Some countries already vary electricity prices depending on where electricity is generated and where it is used – also called Locational Marginal Pricing (LMP). The aim is for the price to act as a signal to encourage system users (consumers, generators, storage) to produce or consume in a way that benefits the system, offering the potential for the market to resolve congestion and help keep bills lower.

Some parts of an energy bill are already impacted by location, such as network charges which can vary depending on where the user is connected. Despite the precedent set by network charges, consumers generally do not like locational signals. The consultancy firm Stonehaven saw 55% of survey respondents indicate that it would be “unfair” for different regions to pay different amounts for power, even if it reduced carbon emissions. Some versions of locational pricing would protect domestic consumers from pricing variations. Excluding domestic consumers would avoid exposing them to potential negative consequences but also may reduce the benefits achieved due to limiting the scope of reforms.

Source: <https://www.stonehavenglobal.com/insights/challenges-for-implementing-locational-pricing-in-the-uk>



Currently, there is a single wholesale electricity price for all of GB.

This means prices for consumers are very similar nationwide.

Investors aren't incentivised by the price to build new generation assets close to where demand is highest.

This can increase some costs for making sure there is enough electricity across the whole network.



Regional pricing would see a small number of zones introduced, potentially as few as two.

Higher prices would apply in areas of relatively high demand and relatively low generation.

Options are still being developed, but consumers in Scotland could see cheaper prices, with higher consumer bills in England and Wales.

Generators could receive a lower price for electricity within Scotland, and a higher price for electricity generated further south.

One version of LMP could see GB split into hundreds of markets – ‘nodes’.

LMP could introduce overall system efficiencies, but might take more than a decade to introduce.

The boundaries for these nodes would need to be sensitively developed, because where a house or business was located would affect the price they paid for energy.

This is probably the most complicated option being considered under REMA because of the scale of the change. One way to imagine nodal LMP is by comparing it to a scenario where the UK redraws its Parliamentary constituency boundaries, and MPs' votes would subsequently be weighted based on how much their constituents are affected by a policy decision. Supporters of LMP highlight the potential for less network constraints and lower charges as a result.



Consumer impact:

Adding locational signals could reduce some costs that make up an energy bill. Some consumers would likely end up paying more because of where they live or work. Generally, consumers are cautious about prices that change based on their location.

Split markets: potential benefits but an unproven concept

Although the costs of generating electricity varies between technologies, the price that feeds through to bills is typically driven by the price of the most expensive technology. For example, electricity from a wind farm is often priced the same as that from a more expensive gas-fired power plant, even though the costs of building, running and fuelling the two are very different. Options on how to break the link between the high price of gas and the price paid for renewable electricity have been discussed, the goal being to reduce the overall cost paid by consumers.

As part of the REMA process, the government is considering whether two markets could be created - one for variable renewables and one for fossil fuels. While this could theoretically bring down prices – and bills - significantly, the approach has not been tried before, either in this country or internationally. As such, the potential benefits are being modelled with limited actual evidence. Concerns over the availability of electricity in a split market (also called ‘liquidity’), and expectations that gas will have a smaller impact on electricity prices over time, have led to suggestions that it is not the right solution to build the system of the future. It has been argued that more incremental options - such as CfD reforms - could deliver similar outcomes within the current market framework.



Consumer impact:

The overarching objectives of the REMA process include supporting the net zero transition and reducing consumer bills in the long-term. Radical and incremental reform have different levels of risk and reward that the government need to consider when pursuing these goals.

Incremental reform

Incremental reform – Transformation of the electricity system could be achieved through reform and improvement of existing schemes, for example:

- Paying generation and storage assets to be flexible, rather than just paid on the amount of electricity they produce, leading to lower overall system costs.
- Letting smaller generation and storage assets have better access to markets, for example domestic scale technology getting paid to support the network at peak times.
- Amending the Contracts for Difference (CfD) Scheme, already responsible for attracting new low-risk low-cost investment into 27GW of UK based generation. The CfD is a government-backed mechanism designed to support low carbon electricity generation projects through an auction to secure the lowest price for large projects – long term price stability for developers can result in lower overall costs for consumers. Successful bidders are awarded CfDs with a ‘strike price’. The strike price is the guaranteed price at which the project will sell its electricity to the grid for a specific duration (usually 15 years). If the market price for electricity falls below the strike price, the government pays the difference to the project developer. If the market price is higher, the developer pays back the excess. Potential options include the introduction of a cap and floor on revenues across a range of markets, not just the wholesale price, and basing payments on deemed generation output rather than metered output. Both of these options are intended to encourage generators to reduce their output when it is beneficial to the system, in turn reducing the costs of managing constraints.

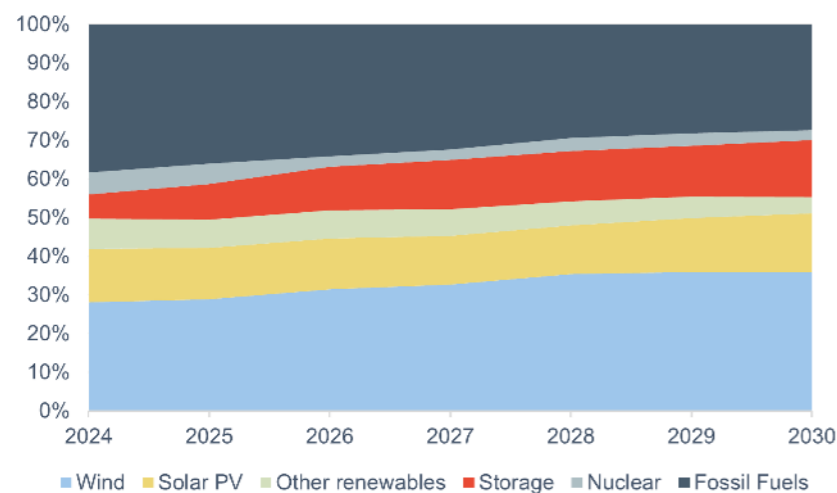
Introducing improvements without significant disruption could deliver benefits earlier than more radical reforms. There are concerns that incremental reforms might not deliver the changes on the scale needed to ensure our energy system is fit for purpose to deliver net zero. However, much shorter implementation timescales, significantly reduced levels of risk, and potential to make a difference to consumer bills sooner make them an attractive option.

Background: Energy market glossary

Consumer demand for electricity will vary throughout the day, with high demand during morning and evening hours. Factors like weather, if it's a working day, or millions of people making a cup of tea during an advert break of a popular programme can see significant changes in demand. The electricity system needs to be highly responsive to these fluctuations making sure there is enough electricity, maintaining the right frequency, throughout the network, otherwise there is a risk of a blackout.

Electricity supplied via the network must match demand on a second-by-second basis. In GB electricity is generated from various sources, including fossil fuels (natural gas, coal), renewable energy (wind, solar), and nuclear power. The availability of these sources can vary significantly, having an impact on the generation mix. The energy generation mix is expected to change significantly over the coming years, with growing deployment of renewables and a reduced reliance on fossil fuels.

The sources of our electricity are changing, with more energy coming from renewable sources



Source: Cornwall Insight Benchmark Power Curve

System Operator - the Electricity System Operator (ESO) is ultimately responsible for making sure there is enough electricity in the network. National Grid ESO undertakes this activity and is licensed and regulated by Ofgem. There are mature plans to replace the ESO with a new body with additional powers called the Future Systems Operator (FSO).

Balancing & settlement – the system operator pays others to provide more or less energy to ensure operational safety, and afterwards recovers the costs from those that have caused actions to be taken due to 'imperfect' trading.

Settlement period – there are 48 half hour settlement periods a day, with parties' imbalances calculated for each period.

Marginal pricing - Marginal cost pricing is where all units of electricity are sold at the price of the most expensive to generate unit. This pricing structure applies to wholesale electricity traded in GB that isn't secured under a long term fixed price contract between a generator (or similar) and a supplier. Marginal cost pricing provides an efficient signal for supply and demand decisions, is transparent and incentivises costs to be kept down. Because so much electricity is generated by burning gas, high gas prices equate to high electricity prices, even if that electricity came from renewable sources. The split market model in REMA seeks to fully decouple gas and renewable energy costs.

Wholesale market – suppliers and generators buy and sell electricity on the wholesale market. This can be days, months or years in advance of delivery.

Generators – generators are the parties which produce electricity for sale on the wholesale market.

Electricity storage operators – electricity storage operators own and operate facilities, such as batteries, to store electricity. These facilities can provide services to the system operator by importing or exporting electricity to help balance supply and demand.

Contracts for Difference – the Contracts for Difference scheme was introduced by the government in 2013, and allows generators to gain an agreement with the Low Carbon Contracts Company to receive or pay the difference between an agreed strike price and the prices that can be achieved by selling power on the wholesale market.

Strike price – the agreed price under a Contract for Difference that a generator is topped up to or pays back to, determined through an auction process.

Timescales for change

This report illustrates how complicated the current electricity system is. The necessity to maintain high performance standards throughout the energy transition has been compared to changing the wings of an aeroplane while it is in flight.

Control over delivery will be critical to impact the UK's legally binding 2050 net zero target, and the goal of decarbonising the electricity system by 2035

The energy industry has previously undergone periods of substantial reform, providing insight into how long change could take. Historical reform was less ambitious in scope than some of the revolutionary options proposed under in REMA. A much larger number of actors are involved on the market in 2023 than during previous reform eras.

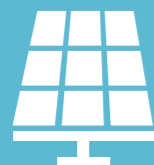
Previous reform programmes

11 years – Reform of the gas industry's central IT systems (Project Nexus, from distribution price control to implementation)

3 years – New Electricity Trading Arrangements (NETA) introduced energy trading options between generators and suppliers

17 years+ – Smart Meter rollout (from Act to end of current installation deadline)

When there is a lot of uncertainty for a long time and it takes a while to plan reforms, it might cause investors to look for other opportunities that can offer them more predictable returns. This uncertainty can increase the cost of capital for projects, which can feed through into higher energy bills. The risk of investors reducing investment is increased because there is a lot of competition from other countries for funding, skills, and equipment. REMA is therefore a crucial opportunity to ensure that the GB energy market is an attractive investment opportunity on an international scale.



Conclusion

Reform of the energy market offers the opportunity to lower consumer bills, ensure security of supply, and help decarbonise the economy.

The majority view is that the current energy market isn't fit for the energy system of the future. The Review of Electricity Market Arrangements (REMA) offers a once in a lifetime opportunity for sectoral reform.

If markets send appropriate signals, generators and investors can respond. Depending on the signals, consumers could also benefit directly by responding to those signals.

A clear policy steer is needed to ensure that reform of energy infrastructure, networks, planning - and other key areas - is conducted effectively. Chris Skidmore's independent review into net zero concluded:

“Significant additional government action is required to ensure that the UK achieves net zero in the best way possible for the economy and the public” and that Net Zero is “the economic opportunity of the 21st century”

Source: <https://www.gov.uk/government/publications/review-of-net-zero>

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