CORNWALL INSIGHT

CREATING CLARITY

Insight paper

Weathering the storm: Mitigating the impact of energy price hikes for businesses

2 September 2022

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About Cornwall Insight

Getting to grips with the intricacies embedded in energy and water markets can be a daunting task.

There is a wealth of information to help you keep up-to-date with the latest developments, but finding what you are looking for and understanding the impact for your business can be tough. That's where Cornwall Insight comes in, providing independent and objective expertise.

You can ensure your business stays ahead of the game by taking advantage of our:

- Publications – 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
- Market research and insight – Providing you with comprehensive appraisals of the energy landscape helping you track, understand and respond to industry developments; effectively budget for fluctuating costs and charges; and understand the best route to market for your power
- Training, events and forums – From new starters to industry veterans, our training courses will ensure your team has the right knowledge and skills to support your business growth ambitions
- Consultancy – Energy market knowledge and expertise utilised to provide you with a deep insight to help you prove your business strategies are viable

For more information about us and our services contact us on enquiries@cornwall-insight.com or contact us on 01603 604400.

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Interviews

For this report, we interviewed leading stakeholders from companies across a wide range of sectors. We would like to thank all the individuals and companies who contributed to this report for sharing their insights, including those who chose to remain anonymous.

- Anthony Ainsworth, Chief Operating Officer of npower Business Solutions
- Richard Robey, Director of Appletree Value Solutions
- Luke McPake, Director at Consultiv Utilities
- Jamie Newall, Managing Director at Eyebright Utilities
- John Palmer, Director at Energy Intelligence Centre (EIC)
- Kate Mulvany, Senior Consultant at Cornwall Insight

The paper previously published on 1 September 2022 has been reissued on 2 September 2022 with minor updates and amendments

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Methodology

This paper follows a mixed methodology based on both quantitative (data collection and analysis) and qualitative methods (in-depth interviews). The interviews were conducted with key stakeholders within the energy sector throughout August 2022. Sources for the quantitative data can be found below charts or in text references.

Through our methodology we have analysed potential impacts of energy prices on GB businesses of different types, size and geographic location.

Weathering the storm:
Mitigating the impact of energy price hikes for businesses

1. Executive summary

The challenging gas supply situation and record-high electricity prices are putting considerable pressures on the GB economy as we enter winter 2022-23. Unfortunately, as the winter approaches, wholesale energy prices are set to rise even further, constraining the growth of businesses that were starting to recover from the scars of the pandemic.

This paper sets out the potential impact of rising energy prices on businesses. We will explore cost projections as well as the geographic and sectoral spread of impacts across GB. This will be followed by a discussion on potential approaches to mitigate exposure to cost increases. Some of our key findings are highlighted below:

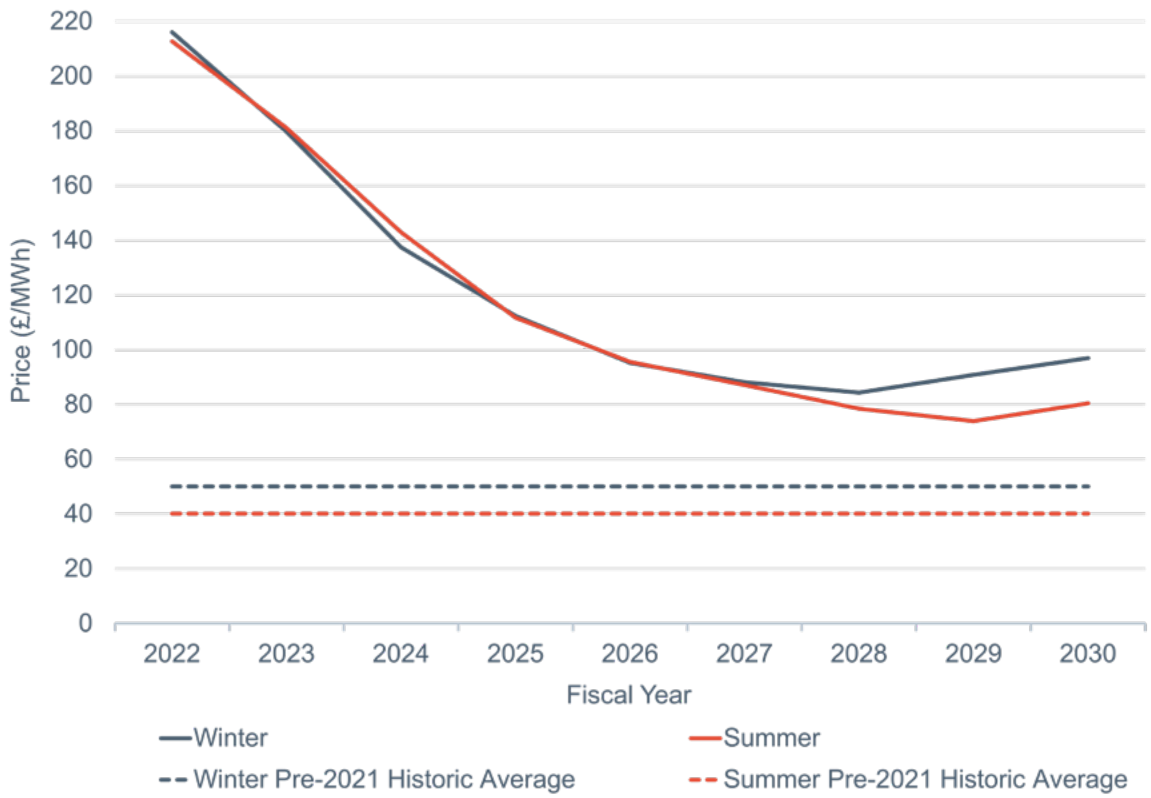
- According to Cornwall Insight's analysis, annual energy supply contracts for 2022-23 could double in price when compared to this year. Contract prices for this year were in turn double those in 2020-21.
  - For those who negotiated their two-year fixed price contracts in the lockdown summer of 2020, the price increase could even be fivefold.
- The impact of these price increases on GB businesses will vary depending on their size, sector and geographic location.
  - Energy-intensive industries such as manufacturing and heavy industry are set to be hit harder than most, given the proportion energy makes of their total cost, and difficulties passing costs on to consumers given their position in supply chains.
  - Sectors already hit hard by the COVID-19 pandemic are also set to struggle on the way to recovery. Hospitality is especially vulnerable due to the high proportion of microbusinesses.
  - Vulnerable sectors such as manufacturing, heavy industry and hospitality play important roles in the economy of regions such as Yorkshire and the Humber, the West Midlands and North East of England. Hence, the energy crisis could disproportionately affect economic activity in these regions, perhaps negatively impinging on the Government's "Levelling Up" agenda.
- Given the challenging macroeconomic drivers, we are witnessing a transformation of the energy supply contracting environment.
  - Many businesses are attempting to hedge for future changes in energy prices, by favouring flexible and long-term contracts where possible.
  - For energy suppliers, new contracting approaches and uncertainty around prices mean vastly increased risk. To protect themselves from these risks, more strenuous contract requirements have been put in place, including enhanced credit checking of potential customers, parent company guarantees, greater scrutiny of cash flows and high security deposits.
  - With the increasingly stringent requirements and fewer contract options being offered by the supply market, there is a higher chance of businesses ending up without a contracted price when current deals expire. Once a business' fixed contract period ends, and if it has not yet sourced an alternative contract, it is placed on out-of-contract terms. These typically higher prices place businesses that were already considered as 'at risk' by suppliers at a greater chance of failing.
  - Some suppliers are offering very short term (~3 month) contracts to business customers perceived as 'risky' to hedge exposure and minimise potential losses.

- Alongside novel approaches to contracting, corporates are increasingly looking at other solutions to hedge future energy prices.
  - Short-term solutions include saving energy on lighting, heating and air-conditioning.
  - Longer-term solutions include behind-the-meter energy generation and storage, as well as greater uptake of corporate power purchase agreements (CPPAs), which can be below current wholesale market prices.
  - Enhancing energy efficiency is also effective, as properly-functioning building energy management systems, better lagging, fixing air conditioning ducts, electrifying former gas equipment, and engaging in retrofitting schemes could lower energy prices. For real estate but also smaller and medium sized enterprises (SMEs), which have some credit to draw on, installing energy efficient measures may be the most effective route to reducing exposure to high prices.
  - Demand side management strategies can significantly lower energy costs, with the adoption of smart technologies that can help to identify and optimise demand side energy consumption patterns.

2. Very high energy prices hinder business recovery

The increasing costs of energy is a topic taking centre stage in conversations across GB and internationally. These conversations are not only amongst policy experts and industry specialists but also between friends, families and colleagues concerned at this already rising tide of higher and higher energy costs. Prices are already rocketing past what we previously would have regarded as record highs in 2021, and, while today's peaks will pass, in Cornwall Insight's opinion, there is little expectation for them to sustain a return to the levels previously thought of as normal, unless factors outside of energy market fundamentals such as the consequences of new government fiscal policies, monetary policies or geopolitics changes the picture (see Figure 1).

Figure 1: Expected cost of energy in the GB

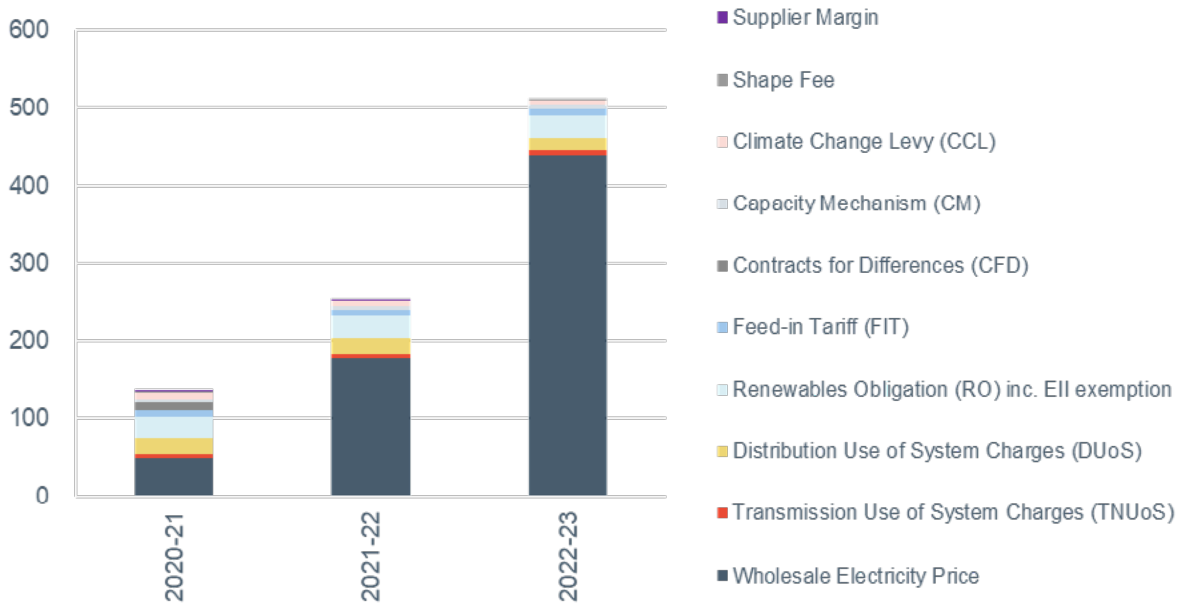


Source: Cornwall Insight

According to a survey published in August 2022 by the Confederation of British Industry (CBI)[1], 69% of businesses expect their energy costs to rise in the next three months, with almost a third anticipating increases of more than 30%. Around 1 in 3 do not expect to pass on additional energy costs, and 30% of the companies think that energy price increases could negatively impact current or planned net zero investment.

Based on our long-term views of wholesale markets and other industry costs, Cornwall Insight conducted analysis looking at the potential costs of energy for businesses in the next half decade. Based on movements in forward curve prices as at August 2022 (see Figure 1), annual contracts can expect their 2023 price to have doubled on 2022, which in turn was double what had been seen during 2020-21. For those who negotiated their two-year fixed price contracts in the lockdown summer of 2020, the price increase could be as much as fivefold (see Figure 2).

Figure 2: Breakdown of Projections, HH LV Customer Archetype, Nominal (£/MWh)



Source: Cornwall Insight

This spike is caused by a number of factors including: the difficult Russian gas supply situation, a global liquefied natural gas (LNG) market running very hot and tight electricity markets in Europe. Anthony Ainsworth, COO at npower Business Solutions, characterised this situation as 'a perfect storm of high wholesale prices and a severe lack of market liquidity'.

A cold still winter could exacerbate these uncertainties and push prices to even more extreme levels, further hindering post-pandemic economic recovery. On the other hand, mild conditions could see at least some of the sting taken out of prices.

The long term outlook remains uncertain and, for power at least, will be subject to the Government's Review of Electricity Market Arrangements (REMA), with profound changes to market design expected in the coming years.

These issues are not expected to lessen soon. Even if trends began to shift in favour of a more stable energy system, contracts set on current prices will need to be honoured. With these contracts becoming longer – in some cases up to five years – it is not just a matter of weathering out winter 2022-23 but rather coming to terms with these high prices potentially being a 'new normal' for the next few years.

1 https://www.cbi.org.uk/media-centre/articles/no-time-to-lose-new-Government-must-act-decisively-to-grip-energy-cost-crisis/

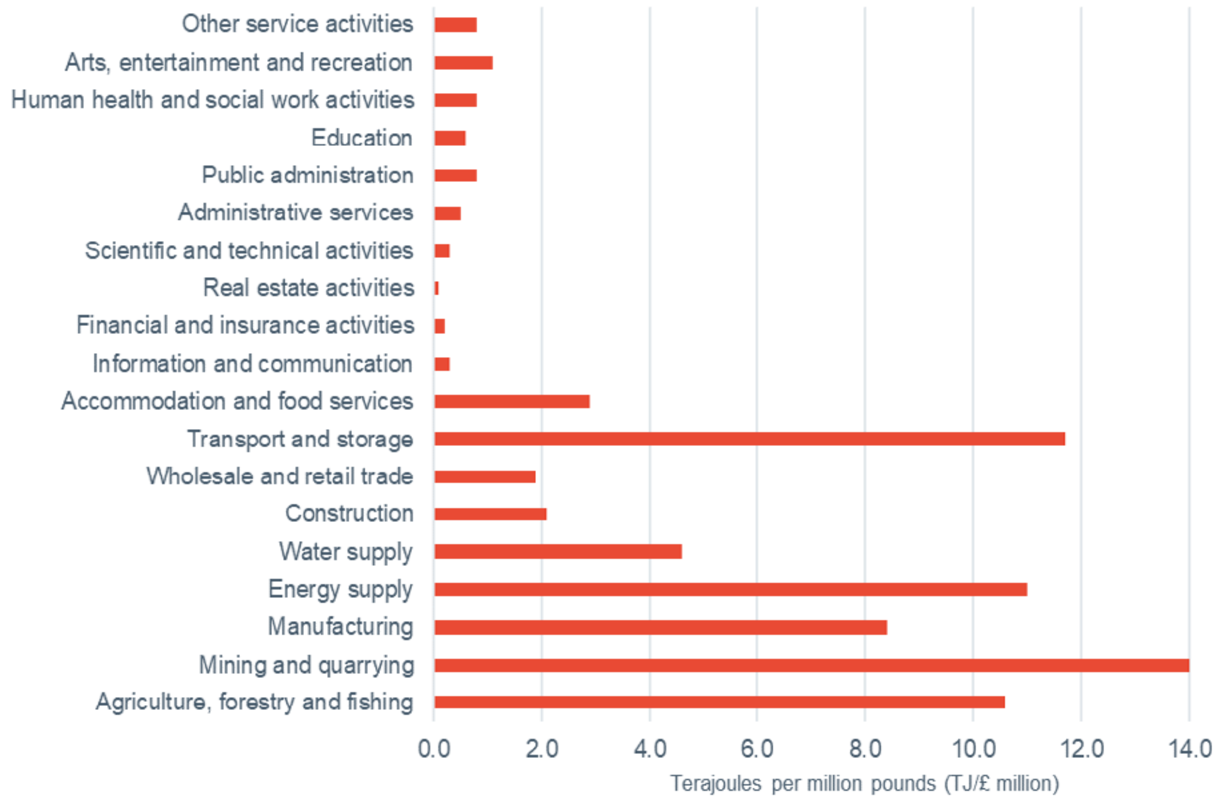
There is only so long that businesses will be able to afford ever increasing energy prices without knock-on consequences for themselves and the wider economy. As noted by Richard Robey, director of SME procurement advisor Appletree Value Solutions, already multiple suppliers have halted renewals or closed up for new customers. In some cases, suppliers are actively trying to shrink their customer base, in particular limiting the number of small businesses they take on.

3. Will some businesses be hit harder than others?

Whilst no business will remain immune to these energy price increases, impacts will be felt to differing extents; key factors influencing this variation will include the sector, size and geographic location of a company. Sectors such as manufacturing, transport and heavy industry are set for more challenges than most as gas and electricity constitute a core cost of production (see Figure 3).

Businesses in the manufacturing and heavy industry sectors will also struggle to pass on costs to consumers given their position in supply chains, resulting in more exposure to business failure. Reflecting on these difficulties for these sectors, Jamie Newall, managing director at the utilities management firm Eyebright Ltd, commented that 'where energy intensive industries lack price flexibility to mitigate the increase in their energy costs, it is conceivable there could be shut downs of some manufacturing plants this winter'.

Figure 3: Energy intensity disparity between sectors in GB (2020)



Source: Office for National Statistics

One promising development for these industries has been the recent move from the Department of Business, Energy and Industrial Strategy (BEIS) to consult on the energy intensive industries exemption scheme. The consultation will seek to identify whether there is a rationale for increasing the subsidy level of the current scheme. Key industry players, such as npower Business Solutions' Anthony Ainsworth, question whether increasing policy cost exemptions will be sufficient action from the Government to support energy intensive areas of the economy.

The hospitality sector is another which is likely to struggle significantly as a result of high prices. It was one of the hardest hit areas of the economy following the COVID-19 pandemic with many closures. Indeed, in August 2022, hospitality, entertainment, music venue & night-time associations joined together to write an open letter to the Government calling for urgent action on rising energy costs[2].

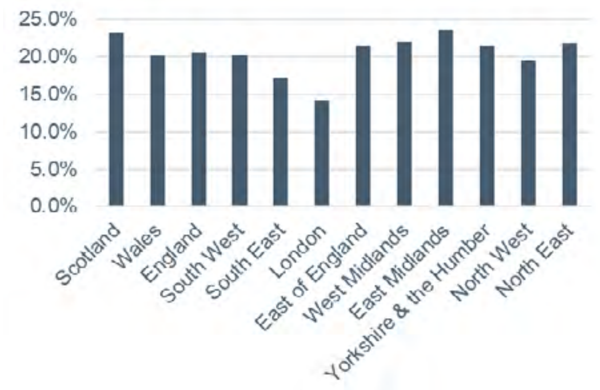
According to an industry source, given the challenges faced by this sector to date, 'suppliers out there just aren't interested in supplying to these companies'. In some cases, smaller businesses with limited backing may find they are rejected by their incumbent supplier or unable to sign up with any supplier at all.

Compounding this vulnerability, hospitality is an area of the economy with a high proportion of microbusinesses[3]. Kate Mulvany, Senior Consultant at Cornwall Insight, noted that these microbusinesses 'often think in terms of a residential customer mindset and may anticipate Government intervention as has been seen in the domestic market'. With insufficient understanding of the divergences between the domestic and business markets, these companies may delay individual action, leaving them exposed as prices increase dramatically.

Sectors such as hospitality, heavy industry and manufacturing, which are more vulnerable to price increases, play key roles in specific regions of the UK. As Figure 5 illustrates, these sectors have a high importance to the economy of regions such as Yorkshire and the Humber, West Midlands and North East.

These are also regions of the country which ranked 'energy supply' as amongst the highest concerns when doing business (see Figure 4). Hence, the cost of energy is strongly linked to the economic development of these regions. These are also the regions which have historically been 'falling behind' in terms of economic development and which have been targeted by the incumbent government as key regions for support and development in its 'Levelling Up' agenda[4]. Since the cost of energy is strongly linked to the economic performance of these regions, we may expect that these areas will be hit harder than others.

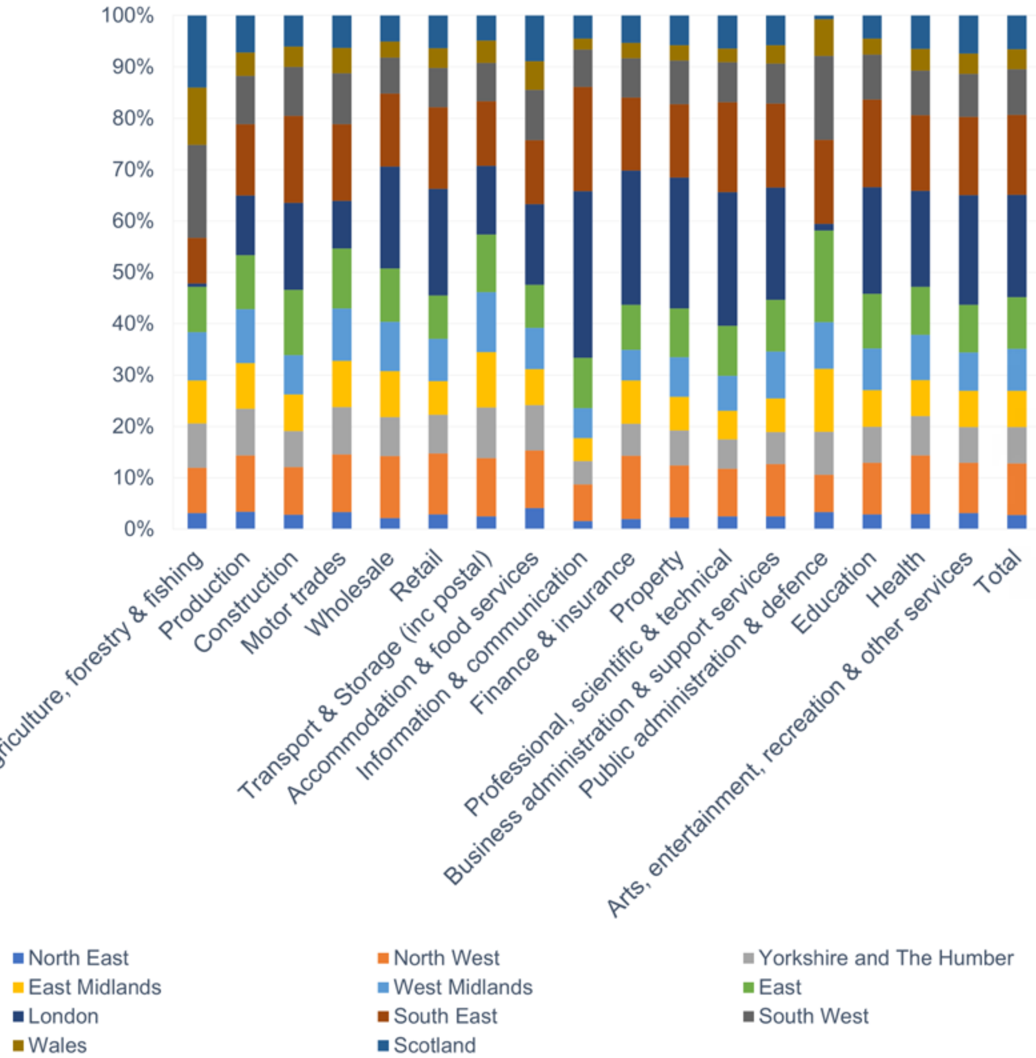
Figure 4: % of participants responding, 'energy prices' to the question: 'Which of the following, if any, will be the main concern for your business in August 2022?'



Source: Office for National Statistics
Note: ONS statistics show Scotland and Wales as individual regions

2 Rising Energy Costs Spark Open Letter to Government (bii.org)
3 Micro enterprises by employee size and industry - Office for National Statistics (ons.gov.uk)
4 Levelling Up the United Kingdom - GOV.UK (www.gov.uk)

Figure 5: Sector distribution across regions in GB (2021)



Source: Office for National Statistics
Note: ONS statistics show Scotland and Wales as individual regions

4. Energy contracting requirements are toughening

For suppliers, the increasing uncertainty around prices has meant vastly increased risk. To protect themselves, many have applied more strenuous contract requirements. This has included enhanced credit checking, parent company guarantees, greater scrutiny of cash flows and high security deposits. Appletree Value Solutions' Richard Robey that suppliers have shown a preference for contracts of no more than a year and that some are also limiting the number of consumers under a certain volume that they contract with.

With the increasingly stringent requirements and reduced contract options being offered by suppliers, there is a higher chance of businesses ending up without a contract when their current one expires. Some suppliers are offering very a short term (~3 month) options to 'risky' business customers, in an attempt to hedge exposure and minimise potential losses.

However, these contracts are fixed at high prices and do not provide businesses with any long-term energy security. Once a businesses contract ends and if they have not yet sourced an alternative contract they are placed on out-of-contract prices, which are significantly higher and with a risk premium built in[5]. These higher prices place businesses that were already perceived as 'at risk' by suppliers at greater chance of failing.

5 Energy advice for businesses | Ofgem

5. The rise of novel approaches to contracting

Box 1: Floating contract types

Floating

Fully unfixed position from day one, market price at point of delivery with full benefit if wholesale prices fall, but no budget certainty, complete exposure to wholesale market prices.

Float-to-fix

Tranche purchasing of defined blocks. "Layering" of purchases yields an overall market average price. Limited budget certainty, while timing of purchases is crucial.

Fix-to-float

Budget defence (largely fixed position from day one) gives budget certainty. Risk metrics determine when/if exposure is taken to take advantage of falling market prices.

On the consumer side, higher prices have meant novel approaches to contracting. Eyebright Ltd's Jamie Newall noted that the demand for flexible contracts (see Box 1) and longer-term approaches such as Power Purchase Agreements tied to renewable assets are in high demand at the moment. With expectations that energy costs will be elevated in the medium term, businesses are having to think beyond their usual 1-3 year horizon. Where a typical contract previously would have lasted 1-3 years, there has been far more interest in contracts of up to 5 years for a range of business types. For customers this has been an attempt to hedge for future downturn in energy prices. Appletree Value Solutions' Richard Robey is concerned with this trend towards longer contracts, committing customers to a high longer term spend. Such contracts do not offer the flexibility that consumers will need in the shorter term. Instead, Robey suggested that a wiser approach might be to review contracts of 12 to 18 months.

Alternative approaches to hedge this risk via contracting terms have included 'stepped' contracts where the energy price is very high for the first year and then decreases in the second year. This contract format allows suppliers to minimise their exposure risk, especially if businesses customers fail in the first year, whilst giving businesses the opportunity to benefit from reduced energy costs in the future.

Luke McPake, Director at Consultiv Utilities, observed an increase in blended approaches to contracting which involve building in as much flexibility as possible. For instance, he noted businesses placing half their estate on a long-term fixed contract and the other half on a short-term fixed contract. Under this configuration, if prices do come down during the contract window, the customer still has a 50% chance to benefit from some of that downturn.

The journey towards self-generation and energy efficiency

Alongside novel approaches to contracting, there are a number of other solutions that businesses can apply to mitigate exposure.

In the very immediate term efficient use of lighting, heating and air-conditioning is a necessary step to reduce bills. But addressing the issues for months and years to come requires a more holistic approach to self-generation and energy efficiency. Regarding the former, there is a lot of interest from businesses in behind-the-meter options, both energy generation and storage, as well as greater uptake of corporate power purchase agreements (CPPAs), which are often priced substantially below wholesale market prices. This is a particularly useful solution to manage costs in the medium to long-term as renewables are expected to remain profitable, and it has the twin benefit of ensuring net zero goals are met which is another important C-suite issue at present for companies. Indeed, in npower's recent Business Energy Tracker report, more than a quarter (27%) of businesses said they are investing in sustainable on-site generation in the coming year, and a third (32%) said they were planning a CPPA [6].

Another approach consists in implementing comprehensive energy efficiency measures. These measures include better lagging, fixing air conditioning ducts, electrifying former gas equipment, and engaging in retrofitting schemes. Eyebright Ltd's Jamie Newall commented that in recent months companies have begun 'perceiving energy efficiency as having a competitive advantage, both in terms of net zero targets but also in terms of mitigating exposure to energy costs'.

6 Business Energy Tracker | npower Business Solutions

Energy efficiency will be particularly key for any businesses with a major property portfolio, such as retail and real estate. It is also a useful strategy for smaller and medium sized enterprises (SMEs) which have some credit to draw on. For these companies, historically it has most likely not been worth their while to investigate extensively into PPAs and supplier contracts, therefore knowledge around energy procurement may be less extensive than for a typical I&C company.

Ensuring accessible energy efficiency measures for SMEs is an area which is seeing significant attention of late. In June 2022, the Climate Change Committee (CCC) published its Progress Report for 2022, highlighting the lack of policy and financial support for SMEs in accessing energy efficiency measures. It stated that there is not a developed mechanism for smaller commercial owner occupier buildings, and called for Government to address the policy gap, bringing forward credible policies to create incentives or enforceable requirements.

Demand side management strategies can also contribute to energy efficiency and significantly lower energy costs. In particular the adoption of smart technologies and use of them via smart tariffs can help to identify and optimise demand side energy consumption patterns. For instance, some suppliers are offering seasonal tariffs for businesses which predominantly operate in the summer with separate rates for summer and winter, this could be particularly helpful for the hospitality sector which does see significant seasonal demand variation.

6. Final considerations

As energy prices increase rapidly across GB, businesses and suppliers alike are being pushed to find solutions to manage short and long-term risk of exposure. It is expected that high energy intensity sectors such as manufacturing and transportation will struggle, given the extent to which high energy prices impact overhead costs and the added difficulties that businesses in the sectors have in passing on price increases to consumers. The hospitality sector is set to face headwinds as many companies in this area of the economy are still trying to recover from the impacts of COVID-19.

These sectors take an important role in the economy of regions such as Yorkshire and the Humber and the North East, which have already been classed as in need of support in the Government's 'Levelling Up' agenda. This underlines the potential impact on already vulnerable businesses and households in these regions.

It is incumbent on any new ministerial team to seriously consider the fundamental structure of the country's energy markets in order to address holistically the cost-of-living crisis, which has become one of the key concern for consumers and businesses alike. It is evident that a more resilient system is needed with reduced reliance on gas imports in order to lessen exposure to global prices. In turn, domestic energy markets need to be better designed to extract the advantages that the transition to renewables brings - a topic that Cornwall Insight will explore in its upcoming paper on the Review of Electricity Market Arrangements (REMA).

Firms are clearly in need of support. In August, the CBI asked the Government to provide energy efficiency support for the most energy intensive sectors by expanding the Industrial Energy Transformation Fund. It is the smaller firms which cannot afford installation of energy efficiency measures or CPPAs which need support now as they head towards the winter with limited protection from cost increases.

The Government is already seeking to provide some help to businesses facing price increases. In August 2022, BEIS launched a consultation aimed at gathering feedback on support schemes to mitigate the rising costs of electricity for energy intensive industries (EIIs) including steel, paper, glass, ceramics and cement. The option being considered could increase the level of exemption for certain environmental and policy costs from 85% of costs up to 100%. Interviewees to the paper questioned whether this support is sufficient action at such a critical juncture.

There are a number of approaches that businesses can implement on their own to limit their exposure to high energy prices. These are especially relevant to larger firms which have the capital and resources to fund and explore these options. A key short-term approach is to apply new contracting and procurement strategies. Flexible and blended contracts are presently very popular for businesses of all sizes. Keeping contracts shorter has also been recommended by some industry participants who warn against locking-in prices given uncertainty across the economy.

It is worth bearing in mind that for suppliers these more novel contracting approaches lead to increased insecurity. This, combined with the increasing bad debt across the economy, has resulted in more intensified credit checks and higher security deposits. This has made it harder for smaller or less financially resilient businesses to find appealing contract terms.

Other solutions that can be implemented immediately include a more prudent approach to energy consumption, by saving money through more efficient lighting, heating and air-conditioning. A number of our interviewees, including npower Business Solutions' Anthony Ainsworth, concurred that in order to encourage this route to minimising costs the Government should seek to provide incentives for energy efficiency across business types. Suggestions for this include reforming business rates or other tax-based assessments.

Looking out to the medium to longer term, energy efficiency solutions could definitely ensure a long-term protection from energy price fluctuations. Other key initiatives include considering on-site generation and CPPAs. These options give consumers the chance to benefit from higher energy prices. On these issues, please see also Cornwall Insight's insight paper "A corporate's guide to decarbonising power", published in June 2022.

On-site generation, on-site storage, private wire arrangements and CPPAs all provide businesses with a pathway to shield them from high and volatile energy prices as well as reaching decarbonisation goals and meeting Taskforce on Climate-related Financial Disclosures (TCFD) reporting, which are mandatory for a number of entities.

In order to identify the best pathway for a company to take, the following questions need to be considered:

- What is the main aim? – Is the purpose to meet the full energy demands of the site or just to avoid importing at peak times?
- What is the energy demand? – Are the energy demands steady or highly time dependent? Is there sufficient energy demands to off-take all the energy from a generator or only part? How are the energy demands likely to vary in the next 5-10 years?
- What is the risk appetite? – Is the corporation willing to off-take more energy than it uses? How much risk is the business willing to take on as part of a PPA? What length of energy supply contract works with the company's future financial plans?
- What is the financial situation? – Is sufficient upfront capital available for building generation and storage assets or private infrastructure? Does the corporation have a high enough credit rating for a CPPA?
- How much space is available? – Is there the potential for on-site generation or are there nearby sites that could be used for a private write arrangement?

Here at Cornwall Insight, we can help address these considerations through consulting and bespoke briefings, coupled with a suite of training courses available off the shelf or tailored to a business. Additionally, we have a wide range of subscription packages targeting specific areas of knowledge or policy insight. Cornwall Insight's consulting team benefits from industry experts with decades of applied experience in the energy markets. We provide insight across the energy value chain, focussing on market entry, strategy and business model formation and evaluation, investment due diligence, market and policy design and regulatory and policy risk assessments. Furthermore, the same team of experts are available to give regular bespoke briefings on topics tailored to the specific needs of a business.

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