Department for Business & Trade

Energy Intensive Industries:

Consultation on the British Industry Supercharger package for strategic Energy Intensive Industries (EIIs)

Contents

Department for Business & Trade

General information

Why we are consulting

This consultation addresses two of the three elements of the package of measures announced as part of the British Industry Supercharger (BIS) for Energy Intensive Industries (EIIs). The package of measures includes an increase from 85% to 100% relief through the Exemption Scheme from the costs of the renewable levies; a 100% indirect exemption from Capacity Market charges; and relief from eligible network charging costs through an EII Network Charging Cost Compensation Scheme.

The consultation seeks feedback on the delivery of an exemption from Capacity Market charges for EIIs and provides the Government's response to the consultation on the EII Exemption Scheme carried out in 2022. The EII Network Charging Cost Compensation Scheme will be the subject of a future consultation which will be published in June 2023.

Consultation details

Issued: 18/05/2023

Respond by: 29/06/2023

Enquiries to: energyintensiveindustries@beis.gov.uk

Consultation reference:

Energy Intensive Industries: Consultation on the British Industry Supercharger package for strategic Energy Intensive Industries (EIIs)

Audiences:

We are seeking views from a wide range of audiences, including energy intensive industries (whether currently benefitting or not from the existing Exemption Scheme), energy suppliers, capacity providers, other electricity consumers, trade bodies, consumer associations, the devolved administrations, and other interested parties.

Territorial intent:

This consultation covers Great Britain (GB)

Department for
Business & Trade

Executive Summary

The April 2022 British Energy Security Strategy committed to action to address the issue of high electricity costs faced by industry. The Government recognises that the UK has high industrial electricity prices and that this has a direct impact on the competitiveness of UK industry and in particular, Energy Intensive Industries (EIIs). Energy Intensive Industries (EIIs) refer to industrial sectors - usually manufacturing industries – that are high users of energy like steel, chemicals, paper, and glass.

On 23 February 2023, the government announced the British Industry Supercharger (BIS): a decisive set of measures to make Britain's strategic EIIs more competitive across Europe and tackle the challenge of indirect carbon leakage. This will be achieved by addressing three areas of the domestic energy system which together contribute to higher electricity costs for EIIs than comparable countries due to a higher level of ambition in decarbonising the electricity grid. The measures that will enable this are as follows:

- An increase in the subsidy under the existing EII Renewable Levy Exemption scheme from 85% to 100% aid intensity, which is anticipated to amount to around a £5/MWh reduction from current levels. This was consulted on in 2022 and is now due to be implemented.
- A new full indirect exemption from the costs associated with the UK Capacity Market, which is also anticipated to amount to around £5/MWh.
- A proposed compensation for the charges paid for using the GB electricity grid through the EII Network Charging Cost Compensation Scheme to reach a £10/MWh reduction and meet our overall policy objective of a £20/MWh reduction when combined with the other measures.

As these are features of the GB electricity grid, the BIS will provide support to GB-based EIIs.

The package of support is aimed at reducing electricity costs for EIIs by £20/MWh by 2025 to bring electricity costs for EIIs in GB closer in line with those in the world's major economies. The measures will be implemented in a staggered way: the Renewables Levy Exemption Scheme increase to up to 100% will be implemented once the Energy Bill Discount Scheme (EBDS) ends in April 2024; the Capacity Market Charges Exemption is proposed to follow in 2024; and the EII Network Charging Cost Compensation Scheme is proposed to be implemented in April 2025.

When these measures were announced in February 2023, the government committed to a consultation to gather feedback from industry on how best to deliver the three schemes. This consultation document sets out:

1) the historical context of EII electricity costs and the rationale for the need for government action;
2) the outcome of a consultation which concluded in September 2022 on amendments to the existing Exemption Scheme for energy intensive industries (EIIs);
3) The proposed delivery of the exemption from Capacity Market charges for EIIs;
4) The impact on other, non-eligible users.

A separate consultation on the proposed delivery of the EII Network Charging Cost Compensation Scheme will be published in June 2023.

The context and rationale for intervention

The issue

UK electricity prices are seen to be significantly higher than in other countries. This is a particular issue for EIIs, for whom the resulting cost differential in electricity prices puts them at an international competitive disadvantage and increases the risk of having to rely on import markets, sourcing goods from territories with less stringent climate policies which would come with associated job losses and a loss of investment, and also increases the risk of carbon leakage.

Carbon leakage is defined as the movement of production and associated emissions from one country to another due to different levels of decarbonisation effort through carbon pricing and climate regulation. As a result of carbon leakage, the objective of decarbonisation efforts – to reduce global emissions – would be undermined.

In recent years, GB EIIs have faced the steepest industrial electricity prices in Europe, even with existing government support schemes applied, primarily due to a long-term disparity in network and policy costs.

On average over 2016-2020, Ofgem analysis[1] found that GB EIIs faced electricity prices that were 50% higher than their EII competitors in France and Germany and

[1] Ofgem research into GB electricity prices for EIIs accessed here

nearly 40% higher than EIIs in the Netherlands, after taking into account all the supports and reliefs available to EIIs in GB and comparable neighbouring countries.

In 2020, typical UK electricity costs for EIIs were £56/MWh, compared to £38/MWh in the Netherlands, £34/MWh in France, and £35/MWh in Germany[2]. Whereas Germany and France have taken decisions to shield heavy industry by placing the balance of aggregate costs onto other energy users, the UK has imposed carbon and renewable costs more evenly across electricity users.

This means that the UK has historically chosen to impose policy costs on our most energy intensive industries – such as Capacity Market charges and costs arising from policies aimed at encouraging electricity generation from renewable and low carbon sources. The industries impacted include companies in strategically important sectors such as steel, metals, chemicals, paper, and other foundational industries that employ hundreds of thousands of skilled workers across the UK and support many more in the supply chain. In 2019, their exports made up around 28% of total UK exports.

This puts the UK at risk of significant job loss and disinvestment in these sectors, a position which is only growing more acute against the backdrop of volatility in wholesale energy markets. This means the UK struggles to attract inward investment, as similar costs are exempted from the most energy intensive industries in comparable neighbouring countries, and in the absence of domestic production the UK will need to place much greater reliance on import markets.

Comparatively high electricity costs are putting such industries at a competitive disadvantage as well as increasing the risk of carbon leakage and simultaneously discouraging electrification of manufacturing processes.

Evidence of carbon leakage

The rationale for intervention is the risk of carbon leakage due to high electricity prices. For those energy intensive industries (EIIs) particularly exposed to international trade and heavily reliant on electricity, paying the full amount of electricity policy costs on their electricity consumption to support delivery of the Government's Net Zero Strategy can increase the risk of carbon leakage and the cost of electricity relative to other energy sources. Higher electricity prices may also

[2] ICIS 2022 day-head prices used for wholesale prices across countries. DESNZ analysis used for UK network, policy, and carbon cost analysis. Ofgem 2020 report used for policy and network costs estimate for other EU countries.

make it more challenging for industrial users to switch from gas-intensive production to less carbon-intensive production relying on electrification.

Carbon leakage is the movement of production and associated emissions from one country to another due to different levels of decarbonisation effort through carbon pricing and climate regulation. As a result of carbon leakage, the objective of decarbonisation efforts – to reduce global emissions – would be undermined.

The risk of carbon leakage is supported by theoretical analysis and evidence.

The indirect funding of renewable policy costs under the Contracts for Difference (CfD), Renewables Obligation (RO) and small-scale Feed-in Tariffs (FIT) schemes represents a portion of a firm's electricity costs. While policies differ by country, other nations such as Germany often have more extreme mitigations in place relative to the UK. While these costs alone are not always considered to be the most important factor for carbon leakage, with cost pass-through rates having a significant impact, they contribute to a wider carbon leakage risk. Other factors which affect carbon leakage include capital intensity, trade intensity/exposure, emissions output, and other industry associated costs.

<u>International electricity price gap for EIIs</u>

UK industrial electricity costs have been historically higher than comparable neighbouring countries and our EIIs are unable to remain competitive without intervention.

Prices are made up of the following components:

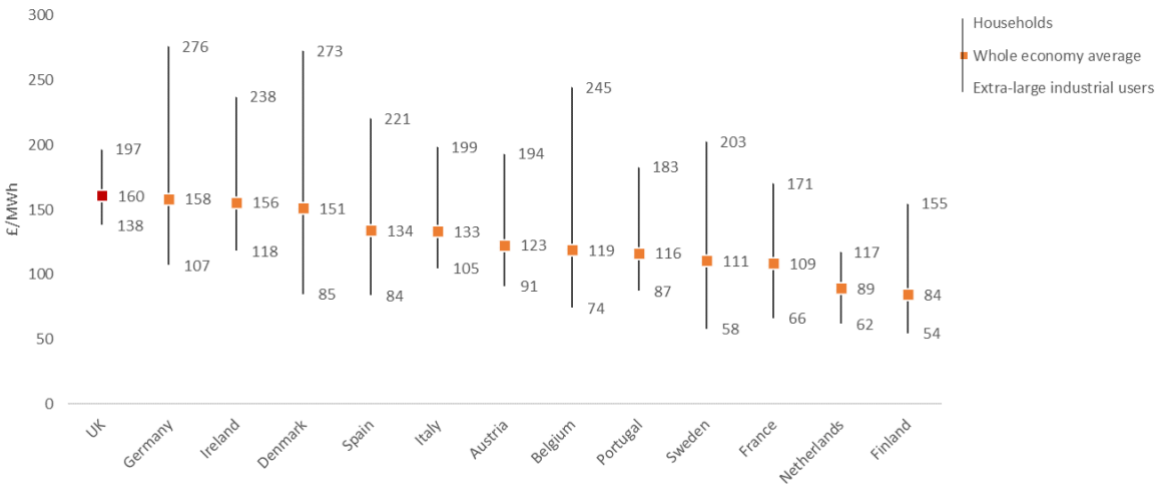
a. Wholesale prices – the cost of electricity generation on wholesale markets, including the carbon costs of generating electricity from fossil fuels.
b. Network costs – charges on the energy bills of households and businesses, which are used to fund both investment and maintenance of both the transmission and distribution networks and also balancing – ensuring that electricity can travel from the point of generation to the point of use, and that supply meets demand at any given time. The manner in which these costs are paid is set by Ofgem.
c. Policy costs – additional charges on the energy bills of households and businesses, set by HMG, which are used to fund energy policies that support grid decarbonisation, or to ensure security of supply.

While wholesale costs are broadly common to all energy consumers (although this can vary depending on time profile of demand and how different consumer groups pay for their electricity), policy and network costs vary across these groups. This leads to a complex picture of electricity prices, both in the UK and in our key EU

competitors. Figure 1 shows electricity prices in EU15 countries. The household price is for a medium use household.

Figure 1 shows electricity prices in the UK and EU-14 countries. The household price is for a medium use household.

Figure 1: EU15 electricity price spread (household, average*, industry) 2021, £/MWh[3]



Source: Households and Extra-Large Industrial Users are from BEIS QEP 2021 data. Average based on Eurostat 2019 sectoral consumption values

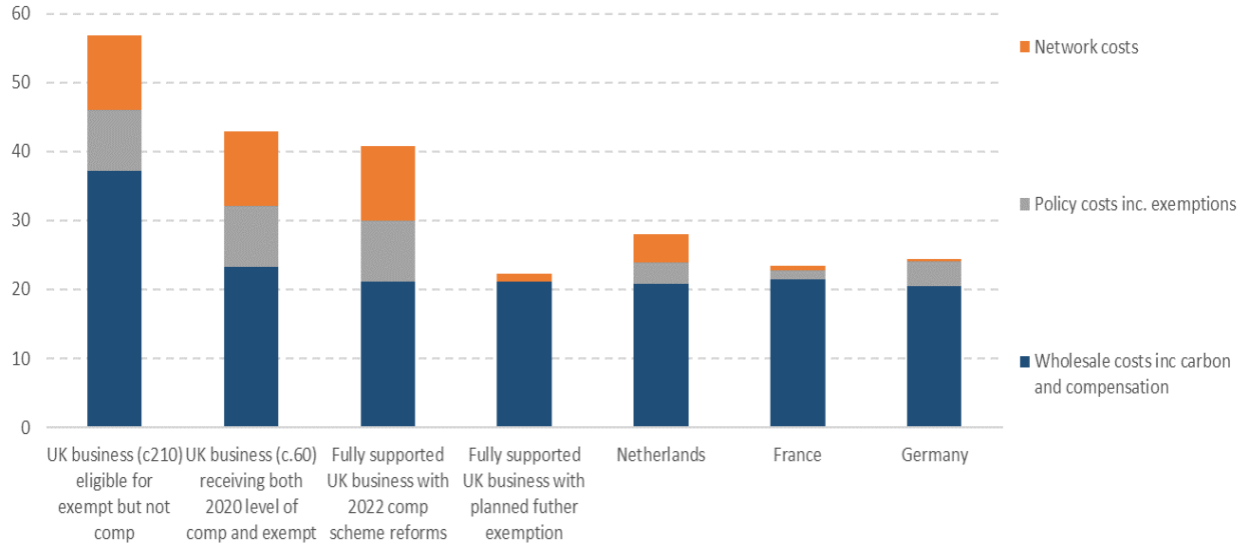
UK electricity wholesale prices have historically been higher than main competitors, thus contributing to high prices. Despite this, figure 1 shows in 2021 UK household electricity prices were around average across EU countries, whereas among very large industrial consumers, UK prices were higher than any other EU-14 + UK country for which data is available, around 62% higher than the EU-median in 2021. This is reflective of how network and policy costs are distributed across different consumers; the UK has chosen to distribute policy and network costs relatively evenly across households and industrial users, whereas other countries have chosen to protect large industrial users with a greater share of these costs falling on households.

The UK does offer relief for some energy intensive businesses such as the Compensation (62 businesses) and Exemption (c. 320 businesses) schemes. 210

[3] DESNZ QEP data here: *https://www.gov.uk/government/statistical-data-sets/international-industrial-energy-prices, https://www.gov.uk/government/statistical-data-sets/international-domestic-energy-prices*

businesses are eligible for the Exemption Scheme but not the Compensation Scheme. The ETS/CPS Compensation Scheme was increased in April 2022 and is estimated to compensate around 70% of indirect carbon costs for eligible EIIs, whereas the Exemption Scheme exempts eligible EIIs from 85% of RO, FiT and CfD costs. These schemes reduce electricity prices for eligible users, however, the relief offered in EU competitor countries is ultimately greater, and as a result supported UK EIIs still face higher electricity prices than their key competitors in Germany, France and the Netherlands (Figure 2). The chart below shows the impact of the current exemption and compensation scheme on EIIs, for the c.60 businesses eligible for both schemes, and the c. 210 eligible for just exemptions. For those 60 fully supported businesses it also tests the impact of proposed increases in the Exemption Scheme to extend to 100% of RO, FiT, CfD as well as an indirect Capacity Market Exemption and compensation for network charges – The British Industry Supercharger.

Figure 2: Average EII Electricity prices (including exemptions and compensation) across different countries in 2020 (£/MWh)



Source: ICIS (wholesale), BEIS analysis (UK policy and network), Ofgem report (2020) (international policy and network)

In 2020, the c.60 UK EIIs receiving support from both the Compensation and the Exemption schemes paid more for electricity than French, German or Dutch EIIs. In the UK they paid £43/MWh compared to £23/MWh for France, £24/MWh for Germany, and £28/MWh for the Netherlands. The c. 210 UK EIIs who receive support only from the EII Exemption Scheme paid £32-33/MWh more for electricity than fully supported German or French firms. It is important to note that different

firms will be eligible for different support in other countries, so comparing exempted-only firms in the UK with fully supported firms in Germany may not be a fair comparison.

Wholesale cost gaps will fluctuate year-to-year depending on fuel and carbon prices, but in 2020 the c. 60 firms that received compensation had a wholesale cost gap at around £2-3/MWh with Germany and France. For the c. 210 firms who only benefit from exemptions, the wholesale cost gap was c. £16-17/MWh, representing roughly half of their total gap with Germany and France. Firms in the Netherlands, France and Germany are assumed to receive compensation for carbon costs.

For both groups of UK EIIs receiving support, network costs make up c. £10/MWh of the gap with Germany and France, while policy costs make up c. £5-8/MWh of the gap. This means that network costs make up around 50% of the gap for firms that receive compensation and around 16-23% for firms that do not. Significant exemptions (up to 90%) on network costs are offered for EIIs in Germany and France, with these costs spread across other consumers including households. Although the UK offers 85% exemptions from some policy costs, firms still pay Capacity Market (CM) charges in full and further exemptions are offered in other countries. Again, the cost of current UK exemptions are funded through other consumers.

Impact of the electricity price gap on carbon leakage

While it is clear there is a significant diversion between UK electricity prices and those of similar competitor countries, the relationship between the price gap and carbon leakage needs to be established. The literature suggests that firms facing higher electricity costs, in part caused by stringent environmental regulation, will look to reduce investment and potentially move elsewhere.

This section will first discuss the relevant literature surrounding the relationship between higher electricity prices caused by environmental regulation leading to carbon leakage and then will assess evidence provided by companies in the 2022 consultation on the EII Exemption Scheme – seen below.

The relevant literature highlights a relationship between where EIIs decide to locate, and areas of low environmental regulation and electricity costs. Khan and Mansur (2013)[4] found that high electricity intensive and polluting firms tend to cluster in areas of low regulation and electricity cost. While this paper was conducted within the USA and studied movement between states as opposed to among nations, the

4 Kahn and Mansur (2013) "Do local energy prices and regulation affect the geographic concentration of employment," Journal of Public Economics 101, 105-114.

results for typically energy intensive industries (e.g., steel) were found to be significantly more elastic with regards to energy prices and employment.

Sato and Dechezleprêtre (2015)[5] examined the influence of an energy price gap between two trading partners on bilateral trade flows for 42 countries and 62 manufacturing sectors between 1996 and 2011. On average, they found that a 10 percent increase in the energy price gap increases bilateral imports by 0.2 percent and that overall, energy price differences explained 0.01 percent of the variation in trade flows. This showed that where a country has higher electricity costs, such as that of the UK, caused in part by more stringent environmental policy, they will see an increase in the imported goods, which could be a risk factor for carbon leakage. This relationship is supported by the evidence provided by EII firms in the 2020 Exemption Scheme consultation.

Multinational corporations were found to have a marginally higher electricity elasticity of demand for employment (Dechezlepretre, Lovo, Martin, and Sato (2016))[6], suggesting these companies were able to take advantage of their international status to mauver resources more responsively. This paper found in support of the pollution haven hypothesis, whereby firms will move production to areas of lower environmental regulation, as evidence by an increase in imports of energy intensive goods increasing in response to tighter regulation. This would indicate that when a country has more stringent environmental regulation, consumption habits move to import from areas of lower environmental regulation and as such represent carbon leakage. This has been borne out by the consultation evidence, with many energy intensive sectors citing a significant increase in imports.

Bijnens et al (2021)[7] concerned electricity elasticity of demand for investment. This ECB paper found that investment was relatively elastic in response to a change in electricity prices, often more severe response than that for employment. This could imply that when faced with relatively high electricity prices firms may seek to reduce investment, this could be seen as a precursor to carbon leakage, whereby domestic productive capacity may be significantly reduced prior to exit. Combined with anecdotal evidence provided in the consultation, this investment, when not undertaken by a multinational firm, may go elsewhere.

Views from Industry

High energy costs are a critical factor in decision making for inward investment and this is particularly the case for nascent, internationally mobile EII sectors such as

[5] Sato and Dechezleprêtre "Asymmetric industrial energy prices and international trade", Energy Economics 51,1, 130-141. (2015)

6 Dechezlepretre, Lovo, Martin and Sato (2016) "Does climate change policy pose a risk to competitiveness: Global firm-level evidence," LSE Grantham Institute.

7 Bijnens, Hutchinson, Konings, Saint-Guilhem (2021) "The interplay between green policy, electricity prices, financial constraints and jobs: firm-level evidence," European Central Bank Working Paper No 2537.

gigafactories. The same can be said for the UK steel industry, particularly given the expectation on companies to decarbonise and transition to electrification in the coming years, in line with the UK's climate ambitions.

We know from sector engagement and market intelligence that the UK is competitive in several areas, however, almost all EIIs say that this issue damages profitability, potential to invest or, in the case of multinationals, their ability to make the case for capital investment.

Firms have told us that disparity between UK and EU electricity prices have led them to disinvesting and, without any changes to the competitiveness landscape for these firms or any increase government support, we should expect this trend of job losses and losses of firms to continue. Without action, the UK risks production and jobs shifting overseas, and there is evidence of a loss of about 20% of jobs in EII manufacturing sectors since 2008. Overall, employment in EII manufacturing declined twice as fast as non-EII manufacturing sectors over this period.

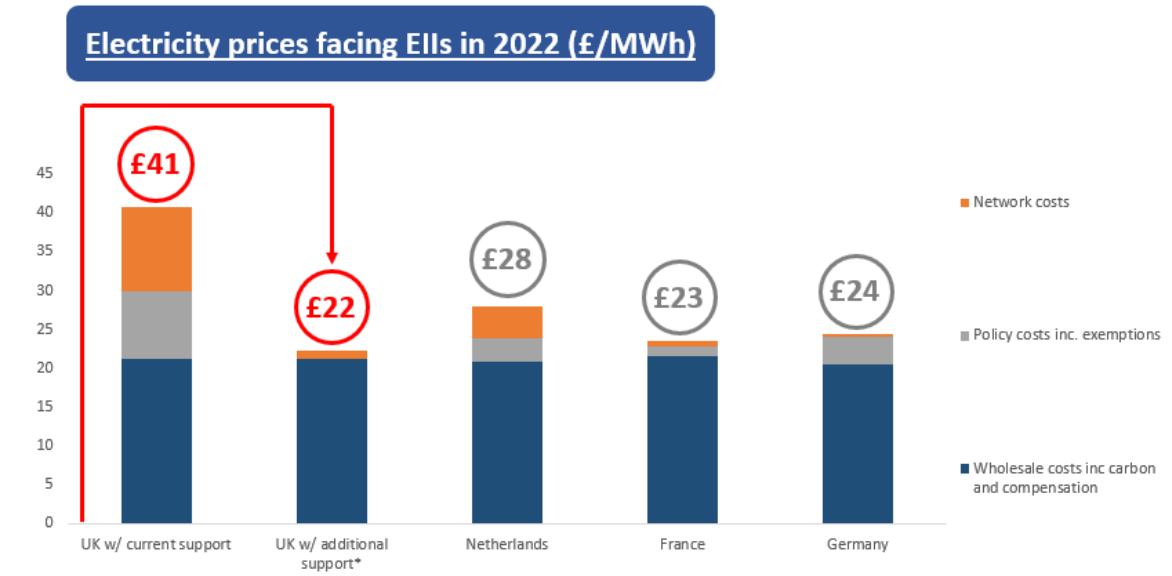
Not only is this bad for UK industry, but it also increases the risk of carbon leakage and firms relocating to countries with less ambitious climate policies than the UK which could undermine the objective of decarbonisation efforts to reduce global emissions. Our proposed measures would help safeguard jobs in strategic sectors, as well as encouraging decarbonisation in the longer-term through greater electrification made possible through lower electricity costs.

Overview of the proposal

The Government's BIS is seeking to tackle the risk of carbon leakage; safeguard jobs in strategic sectors; and encourage decarbonisation through greater electrification by bringing electricity prices for our most energy intensive industries closer in line with those in competitor countries.

The package of measures will support approximately 300 firms in those sectors most at risk of carbon leakage and an associated loss of jobs and investment by exempting (or otherwise reducing) some of the policy costs that EIIs currently face.

Once fully implemented, we would expect electricity costs for eligible EIIs to reduce by approximately £20/MWh, which would significantly close the price gap that exists with competitor nations without seeking to undercut our nearest neighbours, given the interconnected nature of the energy systems across the UK and Europe.



Source: ICIS (wholesale), BEIS analysis (UK policy and network), Ofgem report (2020) (international policy and network)

Further information on the measures is included below, along with questions that we are seeking your views on as the work to implement these measures progresses.

Government Response to the Review of the EII Exemption Scheme

Rationale for the Consultation

The Government's EII Exemption Scheme has been in place since November 2017 and provides relief to over 300 businesses in GB from the indirect costs of funding three renewable policies and their related levies and obligations: the Contracts for Difference (CfD), Renewables Obligation (RO) and small-scale Feed-in Tariffs (FIT) schemes. This is done on the basis that paying the full amount of electricity policy costs on their high electricity consumption increases the risk of carbon leakage and could discourage electrification of manufacturing processes by increasing the cost of electricity relative to other energy sources.

To mitigate these risks, the Government currently provides a discount of up to 85% for eligible EIIs of the indirect costs of the three renewable energy policies outlined above. This provides businesses in the scheme with a reduction in eligible electricity costs of 21/MWh to £33/MWh. The UK Energy Security Strategy, which was launched on 7th April 2022, included a commitment to consider increasing the level of support delivered through the exemption scheme from 85% to up to 100% to further mitigate the challenges faced by EIIs. Increasing the subsidy intensity level to 100% would provide businesses with a reduction in eligible electricity costs of £24/MWh to £38/MWh, bringing prices further in line with international competitors.

Summary of the consultation

On 12th August 2022, BEIS launched a consultation to consider whether there is a rationale for increasing the subsidy level of the current scheme to provide energy intensive industries with an exemption from the indirect costs of funding renewable electricity policies.

The consultation was part of a wider review to consider the increased risk of carbon leakage due to higher costs of industrial electricity prices.

The consultation also considered the cumulative burden of the scheme on eligible companies through the requirements to provide regular business accounts.

Through the consultation, BEIS sought views and evidence from both existing recipients and non-recipients on:

- Evidence of how recipients benefit from the scheme and how this helps reduce the risk carbon leakage
- Evidence of the sufficiency of support of the scheme at its current level
- Evidence of whether existing Government decarbonisation and net zero strategies support industry to decarbonise
- The design of the scheme if there continues to be a rationale for the scheme to continue

BEIS sought views from a wide range of audiences, including energy intensive industries (whether currently benefitting or not benefitting from the schemes), trade bodies, consumer associations, the devolved administrations and other interested parties.

Stakeholders were provided with an opportunity to provide their views and evidence to the questions posed.

The consultation was available on the gov.uk website and was emailed directly to a number of stakeholders who had previously expressed an interest in this issue.

This consultation ran for 5 weeks and closed on the 16 September 2022. A total of 64 responses were received from stakeholders, including energy intensive companies, trade associations, and non-governmental organisations, among others. This document provides the full Government response after analysing all the responses.

Our review assessed the benefits of having an exemption scheme in place for the most energy intensive industry to address the risk of carbon leakage.

We also examined whether the level of support mitigates this risk and is sufficient for industry to support industrial decarbonisation, increase productivity and competitivity.

Lastly, the review sought to understand the key linkages between existing decarbonisation and net zero strategies and the exemption to provide wider benefits, such as levelling up and supporting jobs, ensuring continued business viability.

Following collation of evidence from the consultation and a sector assessment, we have concluded that there continues to be a risk of carbon leakage for energy intensive industries due to higher costs incurred to support renewable energy policies within the UK.

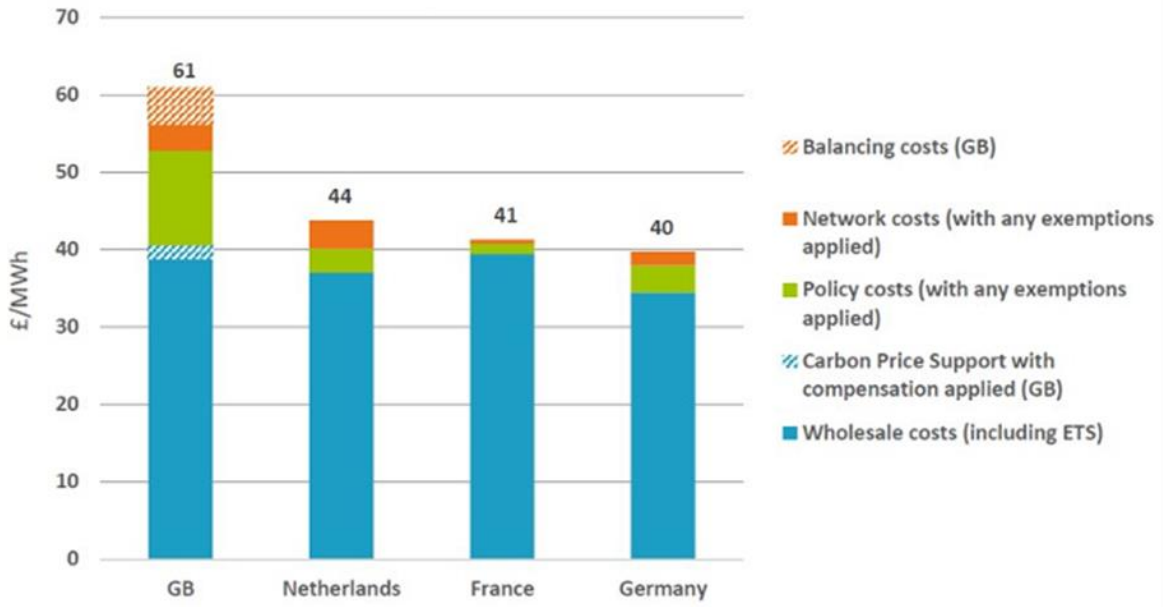
There is a risk that the renewable energy policies implemented with the UK could lead to the displacement of production, and associated emissions that would not have happened if climate rules and policies across jurisdictions were implemented in the same way.

This Government response sets out the key policy changes to the EII Exemption Scheme. The accompanying revised scheme guidance, published alongside this response, will contain more details.

Current intervention and reviewed subsidy implications

Current intervention sees a reduction in these policy costs of 85% for eligible EIIs. When relief for these levy costs are considered in comparison with other similar European nations, the UK's electricity prices remain uncompetitive. On average over 2016-2020, Ofgem analysis[8] found that after considering all the supports and reliefs available to EIIs, both in GB and in other countries, GB EIIs faced electricity prices that were 50% higher than their EII competitors in France and Germany and 40% higher than EIIs in the Netherlands. The report estimates that after exemption and discounts are applied, UK renewable policy costs amount to 23% of total electricity prices, while the next highest proportion being that of Germany's, at 10% after exemption and discount applied. Figure 3 below shows the average UK EII £/MWh cost compared to similar European countries. As the figure indicates, the policy component contributes a substantial portion of the difference between UK electricity prices and similar countries prices.

Figure 3. Average 2016-2020 electricity price in £/MWh with maximum discounts applied for EIIs with annual consumption of 100-500GWh.



As seen above this difference suggests both the need for continued intervention to mitigate high renewable policy costs and that the current exemption of policy costs could go further to bridge the gap between UK and competitor country electricity

[8] Research into GB electricity prices for Energy Intensive Industries," Ofgem (2021)

prices. There is also an additional risk that placing unsustainable policy costs on EIIs undermines public acceptance of ambitious renewable energy support measures.

Firms in their response to the consultation felt the scheme in its current form was significant in reducing the risk of carbon leakage, while an increase would be seen to further reduce this risk.

Table 1. Expected impact of differing exemption subsidy intensity on electricity costs for EIIs[9]

Subsidy Intensity	Price reduction for eligible EIIs
85% (current level)	£27/MWh-£37/MWh
95%	£30/MWh-£41/MWh
100%	£32/MWh - £44/MWh

Table 1 shows the expected and current impacts of differing exemption levels for EIIs. As can be seen an increase of subsidy intensity from 85% to 100% could see a further reduction of around £4/MWh for each eligible firm, which may be necessary in order to bridge further the gap between UK and competitor nations electricity prices for energy intensive industries.

Evidence from the 2022 EII Exemption Scheme consultation

Firms provided a mix of anecdotal and quantitative evidence to suggest a reduction/potential reduction in UK productive capacity as a result of higher electricity prices. One firm in the textiles sector stated their parent company (based in a European country) would potentially move their production to a similar plant based in the US with lower electricity costs because of the higher electricity prices. This would put c.250 jobs at risk.

Some firms cited reduced export demand and increased import demand as an indication of a loss of UK productive capacity such as Flour milling.

The Metals sector stated they felt carbon leakage has occurred in their sector, seeing an 80% shift in capacity offshoring since 2008, representing £8bn in lost GVA per annum. The steel industry also argued this, with one firm reporting that they

[9] HMG internal analysis

produced 60% less than they were in 1990, despite world steel production increasing by 150%.

Imports have been seen by firms as a proxy for carbon leakage, with firms stating that domestic demand is being met increasingly by international firms, indicating a loss of competitiveness and domestic productive capacity. The cement sector felt this was the case, citing an increase of imports meeting domestic demand up to 22.6% in 2021, predominantly from countries not seeing these policy costs – providing Turkey, Morocco and China as examples. One cement producer also stated costs are too high for significant portions of the supply chain to be kept entirely domestic, stating that imports have effectively grown at 1% per annum over the past decade, coming to represent nearly a quarter of the market. Indeed, in 2020, they mothballed a kiln atone plant; as they were now supplementing their production at another with imports. Other industry players also increased their importation as a way of managing costs and supplying the market competitively.

Many firms also mentioned the investment implications of an increase in the exemption level. One such firm submitted internal research concerning the energy price differential between themselves and another large steel producer, they found that over the past six years, the electricity cost disparity has cost the UK sector an additional £345 million, the equivalent of 30% of the sector's capital investment. This could be seen to imply that UK investment potential is hampered by relatively higher input costs, which could otherwise be reinvested in the UK.

Energy Efficiency Measures

A subsidy intensity of 100% may lessen the incentive for businesses to invest in energy efficiency, which will support businesses to reduce their energy bills and emissions in the longer term. Energy efficiency continues to be a key pillar of our Industrial Decarbonisation Strategy and Net Zero Strategy, and industrial energy efficiency could save 4 MtCO2e per annum in industry within the UK by 2050.

The case for not disincentivising energy efficiency improvements was made by some respondents to the consultation, often highlighting the need for some business exposure to policy costs so as not to violate the "polluter pays principle". On the other hand, one manufacturer organisation felt that the ongoing energy price challenges would be a far bigger driver to accelerate energy efficiency measures.

Net Zero Impacts

Some of the costs being exempted relate to measures whose aims are the reduction in fossil fuel intensity and the development of renewable forms of electricity.

However, the rationale for intervention is to minimise carbon leakage, provide UK industry with the optimal policy environment to decarbonise, and to help UK businesses remain viable long enough to consider strategic investment in electrification. Therefore, the policies are expected not to lead to long-term increased energy usage as the aim is to maintain the status quo for businesses in the face of rising energy costs.

This measure can help encourage retention of businesses, as borne out by many responses to the consultation. While in the short term this may lead to a rise in the level of emissions within the UK, as it is assumed businesses will consume more electricity as the price falls, internal ex-BEIS analysis, alongside responses to the consultation, suggest that holding prices lower may enable future fuel switching and subsequently increased domestic decarbonization. This is expected to lead to worldwide emissions falling as where this intervention is not undertaken firms may be expected to move to countries with less ambitious climate policy and subsequently not decarbonize to the same extent. This would mean that while the UK may see a fall in emissions, it may still import high emission goods.

Respondents highlighted the effects higher electricity prices were having on their ability to decarbonise. UK Steel's response concerned, in part, the expected electricity consumption required to switch production to electric arc furnaces; they estimated these would require double the electricity consumption Steel as a sector already requires. This, they argue, would be untenable in the face of significantly higher electricity prices, in part caused by these renewable costs. They stated that an increased exemption could increase this investment happening and thus allow for the aim of net zero to be more likely to be reached.

A subsidy intensity of 100% may lessen the incentive for businesses to invest in energy efficiency, which will support businesses to reduce their energy bills and emissions in the longer term. Energy efficiency continues to be a key pillar of our Industrial Decarbonisation Strategy and Net Zero Strategy, and industrial energy efficiency could save 4 MtCO2e per annum in industry within the UK by 2050.

Government Response to the consultation questions

The consultation included 9 questions. This Government Response addresses these questions, setting out responses from respondents, the Government's consideration and next steps. Questions 8 and 9 refer to publishing a revised 2023/24 Renewable Obligation level, at a date later than is currently required by legislation as a result of amending the level of the exemption after this date. Therefore, the Government's

Response to these questions is dependent on the approach in response to questions 5 and 6.

The Government Response sets out our approach to delivering the key measures consulted on, stating the rationale and timeline for delivering continued support for EIIs to help them address carbon leakage and provide a pathway to decarbonisation and less dependence on high-cost electricity.

1.	What benefits does the electricity relief exemption scheme provide to energy intensive industries including, how the scheme addresses the issue of carbon leakage for you?
2.	Do you agree with our proposal to replace the reference to UID with AIEA in the guidance?
3.	Do you agree that we, where relevant, use a five year rather than three-year baseline to reflect the impact of the Covid Pandemic to businesses? Please explain why
4.	Should we consider accepting applications from businesses with fewer than two financial quarters of financial data?
5.	Is the 85% level of exemption sufficient to for your business or sector? If not, please provide supporting evidence to demonstrate why not
6.	If we were to consider increasing the subsidy intensity level, what level would be appropriate? Please provide supporting evidence for your answer
7.	Do you agree that supporting industry to decarbonise through existing decarbonisation and net zero strategies is the appropriate approach for EIIs? Please add further information to support your response
8.	Should any changes be made to the EII exemption as a result of this consultation, do you agree with our proposal to adjust the 2023/24 renewable obligation level as outlined in the 'Publication of the 2023/24 obligation level' section of the consultation document? If not, please explain why and, if possible, suggest alternative approaches.

9.	Should any changes be made to the EII exemption as a result of this consultation, do you consider that a minimum of three months' notice between the revised obligation level being published and implemented is reasonable? If not, please explain why and, if possible, suggest alternative approaches.

Question 1: What benefits does the electricity relief exemption scheme provide to energy intensive industries including, how the scheme addresses the issue of carbon leakage for you?

Consultation Response

The risk of carbon leakage was of concern to several respondents. Respondents suggested that higher electricity prices, when compared with competitor countries with less stringent regulation or more generous support, has led to an increase in imports for their products. This could indicate a reduced demand for domestic goods which could be seen as a precursor to production moving elsewhere.

One respondent explained in their response that their international parent company sees the Exemption Scheme as one reason not to move production to a similar site overseas and that an increase in subsidy intensity would bolster the argument for retention.

Many respondents cited the electricity price differentials as a cause for reduced long term investment in the UK and where multinationals were concerned a moving away of potential investment from the UK to other countries.

Government Response

The Government takes the risk of carbon leakage seriously.

Despite the limited evidence of direct carbon leakage due to renewable electricity policies, the Government's opinion in response to the available evidence and to the cited examples of 'investment leakage' is that the risk of carbon leakage from indirect emissions exists.

Therefore, Government will continue to monitor the risk of carbon leakage.

Question 2: Do you agree with our proposal to replace the reference to UID with AIEA in the guidance?

Consultation Response

There was strong support for making this change, which was proposed for consistency with the TCA and the domestic subsidy control regime with almost all those respondents that answered agreeing with the proposed approach.

Government Response

The Government intends to update the regulations and guidance as appropriate so that the requirement for EII applicants to confirm that they are 'not in difficulty' will be based on the concept of an 'ailing or insolvent enterprise' (terminology used in the Subsidy Control Act which came into force on 4 January 2023) rather than by reference to the EU State aid concept of 'undertaking in difficulty'.

Question 3: Do you agree that we, where relevant, use a five year rather than three- year baseline to reflect the impact of the Covid-19 Pandemic to businesses? Please explain why.

Consultation Response

The responses to the consultation offered a range of responses to the question of using a five-year baseline to reflect the impact of the Covid pandemic. Some agreed with the recommendation, recognising the reduction in energy consumption that occurred during the pandemic, for example in certain sections of the printing industry.

A number of respondents commented that the option to exclude the 2020/2021 years from submitted data as per other schemes was an appropriate approach.

Some others felt that it was unnecessary to use a five-year baseline commenting that many companies would have continued trading through the COVID period and that a five-year reference period is too long to be reflective of current business electricity intensity.

A number of other responses, whilst recognising the potential for a five-year baseline to support those applicants for whom the pandemic has had a negative impact,

suggested that the five-year baseline be introduced for those applicants for whom the pandemic has had a negative impact on their eligibility with others recommending an option for an applicant to be able to choose between a three-year or five-year period.

Government Response

The Government considers that the Exemption Scheme is a critical and much needed support mechanism to help those who are deemed to be eligible to receive support to meet the stated aims of the Scheme.

Therefore, to ensure that, where possible, recipients are not unduly affected by events outside of their reasonable control, the Government has introduced criteria, which will apply from April 2023, whereby, applicants for the EII Exemption can choose to provide three years' worth of data from the previous five-years to account for any years that are significantly and detrimentally affected by pandemic, and which would result in an applicant being deemed ineligible on this basis.

Question 4: Should we consider accepting applications from businesses with fewer than two financial quarters of financial data?

Consultation Response

The responses to this question were mixed, ranging from concerns that less than two financial quarters is not long enough to determine a given company's energy consumption trending as well as seasonal fluctuations, to responses supportive of this change, which would ensure new EIIs are not immediately at a competitive disadvantage and would support new EII sites.

A number of respondents supported the proposal to accept applications from businesses with fewer than two quarters of data alongside other views that a longer time of one year's trading data should be required.

One respondent commented there is a risk of disincentivising new investment if newcomers face higher costs than incumbents for their first year of operation.

Government Response

As the overarching objective of this proposal is, where possible, to provide an opportunity for new entrants to the UK market and new sites to be quickly established, we consider it appropriate to allow businesses to apply with one quarter of financial data.

Therefore, from April 2023, the Government has introduced criteria, allowing companies to submit an application for consideration with only one quarter worth of data provided.

To ensure that the requirement meets a valid level of scrutiny, there will continue to be robust checks on businesses including on Companies House data, company name history, trading location, electricity usage and business presence.

Question 5: Is the 85% level of exemption sufficient for your business or sector? If not, please provide supporting evidence to demonstrate why not

Question 6: If we were to consider increasing the subsidy intensity level, what level would be appropriate? Please provide supporting evidence for your answer

Consultation Response

A significant majority of respondents to the consultation stated they would strongly recommend an increase in subsidy intensity, stating that this would help them reduce their energy costs, which would in turn enable them to be more competitive and address the fundamental issue of carbon price differentials.

A specific response from the UK steel sector stated that the current 85% exemption level is insufficient for the sector, quoting that in 2021/22, their sector faced electricity prices that were significantly more expensive compared to German and French companies in the same sector, with UK production sites paying 61% and 51% more, respectively, than their main competitors.

Another respondent stated that making it easier to access the scheme and extending the exemption to 100% would offer reductions to companies facing costs well in excess of £300/MWh, which would go a limited way towards making them competitive with companies from other European and Asian countries.

Yet another respondent commented that the end goal should be to create an attractive investment environment for advanced manufacturing industries like chemicals, as well as emerging green industries such as battery, wind turbine and green hydrogen manufacturers. These new, growth industries will also depend on access to clean and competitively priced electricity, as well as a strong and innovative supply chain.

Government Response

The Government recognises that delivery of its Energy Security Strategy is dependent upon ensuring that those businesses that are the most energy intensive are not unduly affected by its commitment to Net Zero and decarbonisation.

A significant majority of respondents to the consultation stated they would strongly recommend an increase in subsidy intensity to 100% from the current level in order to mitigate the risk posed by international climate policy.

The Government recognises that a significant uplift in the amount of exemption may lessen the incentive for businesses to invest in energy efficiency. However, this should not be the only consideration, particularly at a time when the current cost of energy is such that it already constitutes a major driver to accelerate energy efficiency measures.

Due to the Energy Bills Relief Scheme (EBRS) energy support scheme that was introduced in October 2022 and ran until March 2023 and the subsequent Energy Bills Discount Scheme, which will run from April 2023 until March 2024, the Government has decided that the 85% level of exemption will remain in place during 2023.

Due to the concerns around the potential cost impact on non-EII sectors set out above, the Government will not be amending the level of the EII Exemption during 2023 but intends to deliver the increase in 2024.

Question 7: Do you agree that supporting industry to decarbonise through existing decarbonisation and net zero strategies is the appropriate approach for EIIs? Please add further information to support your response.

Consultation Response

A response from a glass manufacturer indicated that one of the main routes for the glass industry to decarbonise is through electrification of the furnaces. The costs of electricity in the UK means that investment in the electrification of heat is unlikely at the current price levels. In the EU we are now seeing some glass companies investing in electric furnaces because electricity is cheaper in mainland Europe due to lower network and policy costs.

A cement producer responded that a 100% level of exemption is appropriate, and that decarbonisation of their operation requires an increase in electro intensive processes, such as carbon capture and storage, but which will result in a significant increase in the amount of electricity the plant uses.

Government Response

The Government believe that there is compelling evidence for providing ongoing support to UK industry on a longer-term on the basis of helping them address the higher electricity costs that they face.

Government believes that the existing suite of energy efficiency and decarbonisation strategies for industry provide a sufficient framework to encourage business to invest in decarbonisation and renewable energy approaches to their operations in line with its commitment to Net Zero.

Like all sectors of the economy, industry will need to decarbonise, but it is equally important that they remain competitive, and that the UK remains an attractive location to invest in the transition to Net Zero.

Question 8: Should any changes be made to the EII Exemption as a result of this consultation, do you agree with our proposal to adjust the 2023/24 renewable obligation level as outlined in the ‘Publication of the 2023/24 obligation level’ section of the consultation document? If not, please explain why and, if possible, suggest alternative approaches.

Question 9: Should any changes be made to the EII Exemption as a result of this consultation, do you consider that a minimum of three months’ notice between the revised obligation level being published and implemented is reasonable? If not, please explain why and, if possible, suggest alternative approaches.

Consultation Response

Generally, responses to the two questions regarding notification of the Renewable Obligation notice were positive regarding a minimum of three months, in order to deliver the required change to the exemption level. However, some respondents commented that a quicker timescale would be greatly beneficial.

One respondent shared a concern that any adjustment to the EII Exemption should not result in any consequential impact on the non-EII sector, stating that price spikes in energy costs have meant that some companies are struggling to recover this increase from the marketplace. The industry is subject to an extremely challenging commercial environment. Any increase in the cost burden to the sector from Government schemes must be avoided.

Government Response

Due to the concerns around the potential cost impact on non-EII sectors, set out above, Government will not be amending the subsidy level of the EII Exemption during 2023 but intends to deliver the increase in 2024.

Conclusion and Next Steps

The Government will publish updated guidance alongside this Government response, providing information on how to apply for the EII Exemption Scheme, alongside application forms, communicating the approach set out in this Government response.

Eligibility for the measures

The Government intends to adopt the same eligibility criteria across all three measures included in the British Industry Supercharger package, using the eligibility methodology which applies for the current EII Exemption Scheme.

The methodology which determines the cohort currently eligible for the EII Exemption Scheme involves a sector level test and a business level test. A firm must satisfy both tests to be eligible. The methodology ensures that only electricity intensive sectors who are exposed to the pressures of international trade (and are thus deemed to be less able to pass on costs to their customers) are eligible to be

considered for support, and within those sectors only those businesses whose electricity costs amount to 20% or more of their GVA go on to receive support. This is in line with the approach taken for similar measures by EU nations. Further details on the two-step eligibility test, alongside additional requirements, are set out below.

Sector Level Test

- To ensure that support is targeted at those most at risk, the UK Government has limited eligibility to those sectors which are electricity intensive and subject to international competitive pressures using UK specific data from the Annual Business Survey, specifically, those found to have a trade intensity of at least 4% and an electricity-intensity of at least 7%. Eligible sectors are those carrying out the activities listed in **Annex B.**

- Applicants need to establish that they manufacture a product(s) in the UK that falls within one or more of the eligible 4-digit NACE codes associated with each activity. If a business does not manufacture a product in one of these sectors it will not be eligible for support. Businesses that produce both eligible and ineligible products can apply but the support only applies to the proportion of electricity used to produce the eligible product. The table included as **Annex B** sets out the current list of eligible activities at sector level.

Business Level Test

- The purpose of the business level test is to ensure that the support targets only those businesses where it is most needed.

- To satisfy the business level test, businesses will need to show that their electricity costs amount to 20% or more of their Gross Value Added (GVA) over a reference period – the “relevant period”.

- Business electricity consumption includes all electricity consumed by the business during the relevant period (as outlined above) including grid and non-grid consumption.

For businesses that make several products, the exemption is due for the electricity associated with the manufacture of eligible products and the business has to isolate

electricity usage associated with the different products using an agreed method as outlined in the existing Exemption Scheme.

Firms will apply to DBT for a certificate of exemption and successful exemption applicants will receive a certificate setting out the details of their exemption. This should be shared with the applicant's electricity supplier so that the business can receive the exemption it is entitled to. A new certificate will come into force the day after the day on which it is issued and will last until 30th June of the following year. Certificates will only be valid for up to one year and businesses receiving the exemptions must notify DBT on a quarterly basis that they are still trading and carrying out the specified activity in relation to which the application for the certificate was made.

By applying for an EII certificate, an applicant consents to their data being shared with LCCC, the BSCCo, EMRS and Ofgem for administration of the exemption schemes.The Subsidy Control Bill requires granting authorities, in this case DBT, to publish certain information in respect to businesses receiving the exemptions (if worth £500,000 or more) for transparency purposes: specifically their name, the total amount of aid received (within bounded ranges), the date the aid was awarded, the relevant region of operation (ITL), sector of the economy (e.g. manufacturing) and the type of business (i.e. small or large company).

The Government intends to conduct a review of the analysis that underpins the eligibility criteria for the measures. The sectors currently eligible for the EII Exemption Scheme were identified in 2016 as being the most electricity and trade intensive sectors, meaning electricity costs make up a large proportion of their total costs and they are unable to pass them through due to international competition. The list was generated with sector level data from 2010-2012, and broadly aligns with sectors eligible for similar support across the EU.[10]

We intend to complete this review in 2026, to ensure that the analysis is supported by stable, post-Covid 19 and post-EU Exit data to provide us with an up-to-date view of the market and allow us to target those sectors most-at risk from carbon leakage with greater confidence due to more robust monitoring data gathered from the

[10] 54 of the 71 eligible sectors are part of the EU's high-risk list and a further 9 are in the wider EU list.

Energy Bill Relief Scheme (EBRS) Review and the exclusion of years impacted by the Covid-19 pandemic.

The list of eligible sectors will be refreshed accordingly, which may mean that some sectors currently eligible for the Exemption Scheme may no longer be eligible, while others may become eligible for the first time due to their high energy costs and trade intensity, which puts them at greater risk of carbon leakage. This will be kept under review.

The proposed exemption from Capacity Market charges for EIIs

Summary

The Capacity Market (CM) is the government's main tool for ensuring a secure and reliable electricity system. The CM provides all forms of capacity capable of contributing to security of supply with incentives to be on the system and to deliver during periods of electricity stress – for example, during cold, still periods when demand is high and wind generation is low.

It is technology neutral, with existing generators competing against a range of other technologies to obtain agreements under which they commit to making their capacity available when needed, in return for guaranteed payments.

The Department for Energy Security and Net Zero has overall ownership of the CM and sets the direction of the policy. Ofgem's role is to ensure market arrangements are fit for purpose, monitors the CM and manages some Rules changes and some appeals processes. National Grid EMR Delivery Body provides annual advice on capacity requirements and administers key elements of the CM. The Electricity Settlements Company (ESC) controls payments related to the CM which are settled and metered through EMR Settlement Ltd.

CM payments are funded by a charge on electricity suppliers who then recover costs from their customers. Total costs of the CM are made up of two elements: (1) the costs of the CM itself which funds capacity provider payments (the 'supplier charge'), and (2) a settlements costs levy to fund the operational costs of ESC, the Settlement Body (the 'costs levy').

A supplier's share of the CM 'supplier charge' costs is calculated based on their share of total electricity demand at peak times during weekdays over the winter period. As the system currently stands, EIIs are included in each supplier's electricity demand. The intention of the proposal is to set up a mechanism by which EIIs may be indirectly exempted from 100% of CM charges passed on to them by electricity

suppliers. It is anticipated that suppliers would redistribute total costs between other non-eligible users.

This may reduce EII electricity prices by c.£5/MWh from 2024 when we propose the measure should be implemented from, contributing towards the Government's aim of reducing electricity costs for EIIs by £20/MWh overall by 2025.

To implement the policy, we will need to design a mechanism which calculates EIIs' electricity demand so that suppliers can redistribute total CM costs across non-eligible consumers. The current intent is to base this on the design of the existing EII Exemption Scheme, where eligible EIIs would be required to supply evidence that they meet the eligibility criteria to the overseeing department, who in turn would supply eligible EIIs with a certificate of exemption.

Eligible EIIs would then provide suppliers with their certificate of exemption so suppliers can identify eligible EIIs and calculate forecast demand for their eligible EII consumers and supply this information to ESC. Suppliers will be familiar with the existing scheme, how this is charged and how costs are recalculated, so we would expect minimal difficulty in practice. We would then intend for CM charges to be redistributed equally across other non-eligible consumers through supplier charges, with eligible EIIs exempted from the total costs of the CM.

The proposed policy intervention necessarily constitutes an additional process for suppliers. Suppliers will need to declare to ESC the eligible EIIs they supply and calculate EII demand, providing this information separately to their overall demand. It will rely on EII suppliers passing on any cost-saving to their EII customers through electricity bills. We are not proposing to impose an obligation on suppliers to pass on such a saving, however, we are confident that the policy can be enacted in practice without the need for such an obligation because there is high competition between EII suppliers and EIIs are a well-informed, vocal sector.

The intention is to also exempt eligible EIIs from the portion of their bills that fund the operational costs of ESC. Although there will be an operational cost to introducing the process, the preferred option is to exempt eligible EIIs from both the 'supplier charge' and the 'cost levy' imposed from the CM and rebalance these costs across non-eligible users. Ongoing delivery costs of the CM Exemption scheme will be minimal once the mechanism is in place and we do not foresee additional resource to be obtained from a Settlement Body perspective, further to design of the mechanism. Much of the process will be automated once in the business-as-usual delivery phase of the Exemption Scheme. EMRS costs will come out of the Ops Cost Levy and DBT will complete responsibilities of issuing certification and assessing eligibility.

The proposed delivery mechanism

The exemption will require legislation to implement, which we currently propose would occur via amendments to Electricity Capacity (Supplier Payment) Regulations 2014/3354.

How the supplier charging mechanism currently works

In a normal year, licensed electricity suppliers submit forecasts of their gross demand to ESC by 1 June ahead of commencement of the CM Delivery Year (1 October). EMRS, on behalf of ESC, then issue a Payment Schedule for the 12 months of the Delivery Year (October-September), at least two months ahead of the beginning of the Delivery Year. This is proposed to be the effective deadline for EII exemptions to be considered and taken into account to allow for adjustments to be calculated ahead of the Delivery Year.

Suppliers currently pay to the projected Payment Schedule until April the following year before a revised Payment Schedule is created based on Winter peak demand and actual metered data which is collected from November to February based on the peak Winter period. A revised Payment Schedule is then created for the remaining months of the Delivery Year based on the new actual metered data, with the proposal that actual EII electricity usage is adjusted and a revised Payment Schedule is created for the remaining months of the Delivery Year (April-September) and paid for by non-eligible users.

Given we are proposing to use the same certificate which is currently used for the EII Exemption Schemes, for the first year of operation already eligible EIIs will not need to take further action to get themselves certified and ideally EIIs would have certificate in place ahead of any legislation coming into force (and subject to meeting ongoing eligibility criteria). The proposed scheme is designed to provide relief to EIIs based in Great Britain (GB) only as Northern Ireland (NI) operates within a separate and distinct CM from the rest of GB and energy policy is a devolved matter for the NI Executive.

Eligibility

Eligibility is referred to on page 26 and is intended to be the same across the package of measures.

Reconciliation

Reconciliation occurs in the CM charging model on the basis of actual data once the Delivery Year has started. Calculations are designed to ensure there is enough to pay capacity providers and therefore any shortfalls may be mitigated.

The CM scheme mitigates the risk of a funding shortfall through the provision of Credit Cover, and this is managed by EMRS on behalf of ESC. Suppliers are required to lodge Credit Cover with ESC so that they are in a position to cover their CM Supplier Charge for one month in the event of payment default, mitigating the risk of non-payment of charges to the Capacity Providers during a Delivery Year.

All suppliers' market share shifts with exemptions applied, so some will have lower credit cover, and some will have higher. We propose that suppliers will remain subject to existing credit cover requirements and the amount of credit cover required will take into account EII demand, and so may increase or decrease accordingly. We intend for this to have a minor impact.

We intend to implement a repayment mechanism whereby electricity suppliers automatically recover over-exemption in a firm's future electricity bills once the amount of over-exemption has been identified. Over-exemption will be identified in a firm's quarterly reporting and the mechanism to recover over-exempted costs will be incorporated in the design of the exemption to ensure this happens automatically. If an EII no longer meets the eligibility criteria then the certificate will be revoked via a notice. This is currently done via the ongoing process of quarterly reporting from companies.

Mutualisation

The Settlement Body can mutualise defaults on supplier obligation payments when the defaulting supplier's collateral is exhausted, or if it determines that the collateral is likely to be exhausted within the next five working days. Defaults will be mutualised across all non-defaulting suppliers and amounts recovered from a defaulting supplier will be passed through to suppliers who contributed to the mutualisation event.

The indirect CM Exemption proposes to will require amendments to a number of formulas within the Electricity Capacity (Supplier Payment etc.) Regulations 2014 which calculate how CM costs are charged. We will look to include mutualisation calculations in these changes to ensure the eligible EIIs are exempt from all associated payments.

Information flows

Information sharing and publication of certain information is intended with this exemption. Accordingly, we propose to ensure the scheme has appropriate channels for information to be shared and, in some instances, published. This includes:

- Between the Settlement Body and DBT: Regarding how relevant supplier charges are calculated and EII certification
- Between the Settlement Body and the CfD counterparty: Regarding EII eligibility and percentage exemption, for calculation purposes.
- Between the Settlement Body and suppliers: Regarding the forward schedule of CM fees and which EIIs are exempt, ahead of the Delivery Year.
- Between suppliers and the Settlement Body: This information flow already exists relating to forecast demand for all customers so the Settlement Body can stress test the overall. forecast and provide a level of assurance that forecasts are accurate.
- Between EIIs and DBT: This information flow already exists for certification and audit purposes.

Effects on overall demand

There is a question whether EIIs will be disincentivised to reduce electricity usage following implementation of the proposed exemption given the associated saving and consequent capability to increase output. However, given the CM exemption is being considered as part of a wider package, this risk is considered to be minimal as CM charges alone per EII are low and spread across a wide time period. In terms of general electricity demand, the reductions in charges will be introduced over a period of time, meaning it is unlikely that demand will be adversely impacted and limit the risk of a significant increase in demand. We therefore do not foresee any adverse unintended consequences to the everyday running of the CM.

Consultation questions:

1. Do you have views on whether the proposed process will deliver on the intent of the policy?

2. Do you have views on creating a Capacity Market exemption which uses a similar structure as appropriate to the existing EII exemption scheme?

3. Are there aspects of the existing EII exemption scheme that you consider are not appropriate for the proposed Capacity Market exemption?

4. Do you perceive these proposals to cause any unintended consequences to the running of the Capacity Market?

5. Do you have views on the impact on supplier credit cover requirements and how these will change as a result of the policy?

To submit answers to these questions, please click here or email energyintensiveindustries@beis.gov.uk.

The proposed relief from eligible network charging costs for eligible EIIs

Electricity network charges are charges paid by electricity network users (electricity suppliers and, to a lesser extent, generators) for their connection to and use of the transmission and distribution networks. EIIs pay a portion of network charges which reflect the level of demand they place on the network.

The Government has faced calls from GB EIIs for support on network charging costs for some time given the higher cost burden placed on GB-based EIIs compared with those in many EU countries. A number of EU states such as Germany, France and the Netherlands offer significant exemptions on network charging costs for EIIs, with real term discounts in those countries ranging from between 55% to 90% for EIIs that meet certain eligibility criteria regarding electricity consumption and off-peak grid utilisation.

The Government proposal is to establish the following:

- An EII Support Levy raised on all licensed GB electricity suppliers, which will raise revenue that will be used to fund support;
- An EII Network Charging Cost Compensation Scheme which will compensate eligible EIIs for a portion of their network charging costs.

Providing EIIs with a partial refund on network charging costs would reduce prices by up to £10/MWh in 2025, which alongside the two other measures in the British

Industry Supercharger, will help achieve the goal of reducing GB electricity prices by £20/MWh by 2025. This would help bring electricity costs for GB EIIs closer in line with those in competitor countries.

A separate consultation on the implementation of the EII Support Levy and EII Network Charging Cost Compensation Scheme will be published in June 2023.

Impact on other electricity users

The costs removed from the bills of eligible EIIs through the package of measures will be redistributed to all other energy users – including households and non-eligible businesses. The measures will therefore be funded by (electricity) billpayers. There is no cost to the taxpayer beyond this.

The proposed measures are due to be implemented following the conclusion of the Energy Price Guarantee (EPG) and Energy Bills Discount Scheme (EBDS) which currently provide government support to households and businesses with their energy bills, in 2024, when it is expected wholesale prices will have stabilised before falling further in 2025 and beyond.

Support is necessarily limited to those energy intensive industries most at risk of high electricity prices, and therefore impact on other electricity users will be limited to what is necessary to mitigate the risk of carbon leakage, safeguard jobs in strategic sectors and enable decarbonisation through electrification longer term.

The cost of not acting is far greater, as eligible EII sectors employ c. 400,000 workers and have gross value added of £32.8 billion (3.6% of the UK economy). Their turnover is around £155bn and in 2019 their exports totalled around 28% of total UK exports. They also support thousands of additional indirect jobs as part of the wider supply chain, with many providing higher than average wages in more economically vulnerable areas.

Households

If the cohort eligible remains the c.300 firms currently eligible for the EII Exemption Scheme, this package will add between £3 and £5 to the average household bill once all measures have been implemented (by 2025/26).

Once all measures have been implemented, the package will increase electricity costs for non-eligible businesses by approximately £1/MWh. How much this adds to an annual electricity bill will depend on the overall size of the business and the amount of electricity they use, but this represents less than 1 percentage point to electricity bills for non-eligible businesses in 2025. Table 2 below estimates the cost impact of the £1/MWh increase on example non-eligible, small, medium, and large organisations, including a pub and a hospital.

Between now and Q2 2025, forward curves suggest that electricity wholesale prices will drop by over £200/MWH and gas prices by over £50/MWH. Therefore the (small) additional costs of c. £1/MWH are expected to be outweighed by much larger reductions in wholesale energy costs.

Table 2 – Impact of a £1/MWh increase in electricity prices for non-eligible businesses.

Case Studies	Electricity Annual Consumption (MWh)	Size	2025 Electricity Bill Estimate for year (£)	Additional Bill Increase per year (£)	Percentage Increase over year
Pub	48	Micro	7,300-9,300	48	0.5%-0.7%
Manufacturer	12,000	Medium	1,200,000-1,700,000	12,000	0.7%-1.0%
Hospital	24,000	Large	3,100,000-4,100,000	24,000	0.6%-0.8%
Retailer	12	Micro	1,800-2,300	12	0.5%-0.7%

Source: Q4 2022 DESNZ price and bills projections. The model assumes a high net zero ambition, a central fossil fuel price, and a high ETS price and is just one of a range of forecasts for 2025. List of case study sources in Annex C.

Summary of expected costs

Table 3 – Expected costs from increased electricity prices for non-eligible businesses and yearly household bills. [11]

(2025 prices)	Yearly household bill increase (£)	Price increase for non-eligible consumers (£/MWh)
100% Exemption	1 - 2	<1
100% Capacity Market reduction	c.1	<1
90% reduction in network charges	1 - 2	<1
Total	**£3 - £5**	**c. £1 /Mwh**

Note: details on calculating the estimates in Annex D

The three proposed measures require different mechanisms to implement and will therefore be implemented at different times, meaning the cost increase for households and non-eligible businesses set out above will accumulate slowly from Spring 2024 onwards.

Subsidy control considerations

This package of support is subject to the requirements of the Subsidy Control Act, in particular completion of a full subsidy control assessment to ensure the subsidy control principles are met.

ANNEXES

Annex A: Respondents to the EII Exemption consultation

[11] HMG internal analysis – details of methodology in Annex D

Department for
Business & Trade

Below is a list of those who responded to the consultation.

1	Allied Glass Containers
2	Ameresco Ltd
3	Associated British Foods
4	Association for Decentralised Energy
5	Bartlett institute for sustainable resources (UCL)
6	Beatson Clarks
7	BOC
8	Breedon Cement
9	Bridgnorth Aluminium
10	British Glass
11	British Plastics Federation
12	British Printing Industries Federation (BPIF)
13	British Volt
14	BT Group
15	Carrs Flour Mills Ltd
16	Cast Metals Federation
17	CELSA
18	CEMEX
19	Circular Fuels Ltd
20	Cold Chain
21	Confederation of Forest Industries
22	Critical Minerals Association
23	Community the Union

24	Dairy UK
25	Dimenta
26	EDF
27	Energy Intensive Users Group (EIUG)
28	E-on
29	EPTG Ltd
30	Exprоment Technologies Group Ltd
31	Foodchain and Biomass Renewables Association (Fabra UK)
32	FWD
33	GFG Alliance
34	HUK
35	Industrial Communities Alliance Wales
36	Ineos O&P UK
37	Knauf insulation
38	LCCC
39	Make UK
40	Mobile UK
41	Minerals Products Association
42	NSG
43	Nuclear Industry Association
44	OEUK
45	OFGEM
46	Rentalog Technology Ltd
47	SGL Carbon Fibers

48	Skymark Packaging International
49	SMMT
50	SSE
51	Stakraft
52	Stoelzle Floaconnage Limited
53	Tarmac
54	Tata Steel
55	Tecan Ltd
56	UK Flour Millers
57	UK HFCA
58	UK Steel
59	UKCTA
60	UKPIA (UK Petroleum Industry Association Ltd)
61	Union Electric Steel UK Ltd
62	Valero
63	Vodafone
64	Wood Panel Industries Federation

Annex B – List of sectors eligible for the current EII Exemption Scheme

Description of activity	NACE Rev 2 Class
Mining of hard coal	05.10
Quarrying of ornamental and building stone, limestone, gypsum, chalk and slate	08.11

Operation of gravel and sand pits; mining of clays and kaolin	08.12
Other mining and quarrying not elsewhere classified	08.99
Processing and preserving of poultry meat	10.12
Manufacture of grain mill products	10.61
Manufacture of prepared feeds for farm animals	10.91
Manufacture of malt	11.06
Preparation and spinning of textile fibres	13.10
Weaving of textiles	13.20
Manufacture of knitted and crocheted fabrics	13.91
Manufacture of carpets and rugs	13.93
Manufacture of non-wovens and articles made from non-wovens, except apparel	13.95
Manufacture of other technical and industrial textiles	13.96
Manufacture of other textiles not elsewhere classified	13.99
Manufacture of other wearing apparel and accessories	14.19
Manufacture of knitted and crocheted hosiery	14.31
Manufacture of other knitted and crocheted apparel	14.39
Tanning and dressing of leather; dressing and dyeing of fur	15.11
Sawmilling and planing of wood	16.10
Manufacture of veneer sheets and wood-based panels	16.21
Manufacture of other products of wood; manufacture of articles of cork, straw and plaiting materials	16.29
Manufacture of paper and paperboard	17.12
Manufacture of corrugated paper and paperboard and of containers of paper and paperboard	17.21
Manufacture of household and sanitary goods and of toilet requisites	17.22
Manufacture of wallpaper	17.24
Manufacture of refined petroleum products	19.20
Manufacture of industrial gases	20.11
Manufacture of other inorganic basic chemicals	20.13
Manufacture of other organic basic chemicals	20.14
Manufacture of fertilisers and nitrogen compounds	20.15
Manufacture of plastics in primary forms	20.16

Manufacture of synthetic rubber in primary forms	20.17
Manufacture of man-made fibres	20.60
Manufacture of rubber tyres and tubes; retreading and rebuilding of rubber tyres	22.11
Manufacture of other rubber products	22.19
Manufacture of plastic plates, sheets, tubes and profiles	22.21
Manufacture of plastic packing goods	22.22
Manufacture of other plastic products	22.29
Manufacture of flat glass	23.11
Manufacture of hollow glass	23.13
Manufacture of glass fibres	23.14
Manufacture and processing of other glass, including technical glassware	23.19
Manufacture of refractory products	23.20
Manufacture of ceramic tiles and flags	23.31
Manufacture of bricks, tiles and construction products, in baked clay	23.32
Manufacture of other technical ceramic products	23.44
Manufacture of other ceramic products	23.49
Manufacture of cement	23.51
Manufacture of lime and plaster	23.52
Manufacture of plaster products for construction purposes	23.62
Manufacture of fibre cement	23.65
Manufacture of other non-metallic mineral products not elsewhere classified	23.99
Manufacture of basic iron and steel and of ferro-alloys	24.10
Manufacture of tubes, pipes, hollow profiles and related fittings of steel	24.20
Cold drawing of bars	24.31
Cold rolling of narrow strip	24.32
Cold drawing of wire	24.34
Aluminium production	24.42
Lead, zinc and tin production	24.43
Copper production	24.44
Other non-ferrous metal production	24.45
Casting of iron	24.51
Casting of steel	24.52
Casting of light metals	24.53
Casting of other non-ferrous metals	24.54
Manufacture of light metal packaging	25.92
Manufacture of electronic components	26.11

Manufacture of batteries and accumulators	27.20
Manufacture of other electronic and electric wires and cables	27.32
Manufacture of machinery for metallurgy	28.91

Annex C – List of sources for case studies referenced in Table 2

Case study	Source	Link
Pub	Average pub electricity usage from P&L modelling, based on UKHospitality Christie & Co Benchmarking Survey, published summer 2022	https://www.christie.com/news-resources/publications/ukhospitality-christie-co-benchmarking-report-2022/
Manufacturer	UK glass industry energy usage as reported by British Glass averaged by the number of glass manufacturers in the UK as reported by Statista Research Department	https://www.britglass.org.uk/sites/default/files/A%20clear%20future%20-%20UK%20glass%20manufacturing%20sector%20decarbonisation%20roadmap%20to%202050_summary.pdf https://www.statista.com/statistics/383533/enterprises-in-the-manufacture-of-glass-products-in-the-united-kingdom/
Hospital	Electricity usage data for St Thomas's hospital	https://digital.nhs.uk/data-and-information/publications/statistical/estates-returns-information-collection/england-2020-21.
Retailer	Bionic aritcle "What is average business energy consumption?" figures for newagent derived from annual cost less standing charge, divided by unit cost.	https://bionic.co.uk/business-energy/guides/average-energy-usage-for-businesses/

Annex D – Note on methodology of cost estimates in Table 3

This annex describes the calculation and the relevant inputs for the estimated £3-£5 increase in household bills and c. £1/MWh for non-eligible consumers following the introduction of the proposed EII policy support package.

The estimate assumes that EII prices receive a 100% exemption from RO, FITs & CFDs (increased from 85%), a 100% exemption from capacity market charges, and

a 90% reduction in Network charges from 2025. The ranges of estimates are created using different fossil fuel scenarios.

The calculation

A) Volume of eligible consumption (MWH)
B) Price discount for eligible EIIs (£/MWH)
C) Total cost to be redistributed (£)

$$A * B = C$$

D) Total volume of UK electricity consumption (MWH)
E) Volume of non-eligible consumption (MWH)
F) Price increase for non-eligible consumers (£/MWH)

$$D - A = E$$

$$\frac{C}{E} = F$$

G) Average Dual Fuel[12] Household Consumption (MWH)
H) Average increase to dual fuel household bills (£)

$$F * G = H$$

“H) Average increase to dual fuel household bills” is the £3-£5 cost estimate shown in Table 3.

“F) Price increase for non-eligible consumers (£/MWH)” is the c. £1 /MWh cost estimate shown in Table 3.

Source of inputs

A) Volume of eligible consumption (MWH)

The volume of eligible consumption is based on the annual electricity consumption of the c.300 firms which are currently part of the EII Exemption Scheme.

B) Price discount for eligible EIIs. (£/MWH)

Price paid by large exempt EIIs are broken down into the wholesale cost, transmission cost, balancing cost, ETS cost, RO support cost, CFD support cost, capacity market support cost, and the feed in tariff cost. We applied the proposed

[12] Without a heat-pump or an electric vehicle

policy options to the different cost components to work out the discount each MWH of EII consumption received.

1) Increasing the Exemption Scheme from 85% to 100%- Take the remaining RO, FITs, CFD costs off from the exempt EII price.
2) 100% exemption from capacity market charges- Take the entire capacity market charge component of the EII price
3) 90% exemption from network charges- Take 90% of transmission and balancing costs off the EII price.

The sum of 1), 2) & 3) is the estimated £/MWH price discount for EIIs following the delivery of the EII policy support package.

D) Total volume of UK electricity consumption (MWH)

Modelled future total of domestic and non-domestic using ex-BEIS analysis.

G) Average household consumption (MWH)

We assume that the average (mean) dual fuel household consumes around 3MWH of electricity in 2025. The average household consumption figures do not include the introduction of EVs and heat pumps. This ensures estimates are comparable with today's bills.