



Electricity Market Reform

Eligibility for an exemption from the costs of Contracts for Difference

JULY 2013

Contents

Contents	2
Electricity Market Reform: Eligibility for an exemption from the costs of Contracts for Differe	
1.Foreword from the Secretary of State	
2. Executive Summary	5
3. How to respond	7
4. Confidentiality & Data Protection	7
5. Help with queries	7
6. The proposals	8
7. Eligibility options	14
8. Consultation questions	21
9. What happens next?	21
Annex A: Glossary	22
Annex B: Additional Analysis	23
Annex C: Estimating Price and Bills Impact	28
Annex D: Administering the scheme	30
Annex E: ETS Sectors	31
Annex F: Consultation principles, comments and complaints	33
Annex G: Electricity Market Reform: Eligibility for an exemption from the costs of Contracts for Difference response form	34

Electricity Market Reform: Eligibility for an exemption from the costs of Contracts for Difference

The Government is working to deliver secure energy supplies for businesses and households whilst driving ambitious action on climate change at home and abroad. To achieve our aims, the UK needs to attract significant investment in low carbon electricity generation. The Government has established the Electricity Market Reform (EMR) programme to meet these challenges. EMR provides support for low carbon electricity generation through Feed-in Tariffs within Contracts for Difference (CfD).

Whilst CfDs and other energy policies will encourage the investment needed in the UK's energy infrastructure, they may put pressure on electricity prices over the medium term. Without Government intervention, Electricity Intensive Industries (EIIs) are likely to face higher electricity costs than in other countries. Any resulting loss of investment by these industries to other countries would impact on the UK economy. These industries are significant employers and play an important role in the low carbon economy through the products they manufacture.

In his Autumn Statement 2011 the Chancellor announced that the Government intends to reduce the impact of policy on the costs of electricity for the most electricity intensive industries. This includes an exemption from the costs of Contracts for Difference, confirmed with the introduction of the Energy Bill in November 2012. This consultation sets out what the exemption might look like, and seeks views on eligibility criteria.

CfDs will not be available to Northern Irish projects before 2016, at the earliest. This consultation will therefore only apply to Great Britain.

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This consultation is relevant to: Electricity consumers (particularly Energy Intensive Industries who are electricity intensive); consumer and industry representative groups; licensed electricity suppliers in Great Britain and Northern Ireland; devolved administrations; The Gas and Electricity Markets Authority; and the operator of the National Electricity Transmission System for Great Britain.

1. Foreword from the Secretary of State

Access to secure, affordable and clean energy is a vital building block for the future of the UK's economy.

In the absence of a global agreement to mitigate climate change, the EU and UK have put in place policies to cut emissions and build new generation capacity that will maintain our energy security. EMR will ensure that for the long term we can keep the lights on, bills down and the air clean by securing unprecedented investment in our energy infrastructure.

In addition to providing the foundations on which our future prosperity is built, EMR will also support as many as 250,000 jobs in the energy sector.

We recognise, however, that this transition will pose challenges for our Energy Intensive Industries which must remain internationally competitive as we lever in the necessary investment in low carbon energy. The recommendation of this document is to exempt industries with a total combined value to the UK of roughly £50bn in turnover, employing 150,000 people and contributing 1% of GVA. Clusters of these sectors are to be found in areas such as the Humber, Teesside and South Wales as well as in other locations across the UK. These industries have an essential role in achieving our transition to a low carbon economy as well as contributing to jobs and growth. Energy intensive manufacturing is central to strengthening our industrial base and rebalancing our economy.

The Government has set out a significant programme of reforms to remove barriers to growth for businesses and equip the UK to compete in the global race. These reforms span a range of policies, including improving the UK's infrastructure, cutting red tape, root and branch reform of the planning system and boosting trade and inward investment.

This document contains proposals, subject to state aid approval, to exempt EIIs from the costs of Contracts for Difference (CfD) where they pose significant risk to UK competitiveness.

We are seeking to strike the right balance between targeting those industries most at risk and minimising additional costs to other consumers.

We welcome views from all interested stakeholders on the proposed scheme eligibility so that the industries whose competitiveness is most at risk from the costs of CfD receive the necessary help. Your responses will help to ensure that eligibility for the scheme is effectively targeted.

2. Executive Summary

- A significant element of Electricity Market Reform (EMR) is the introduction of Contracts for Difference (CfD) to support investment in low carbon electricity generation. CfDs aim to stimulate investment by providing a stable long-term price for low carbon electricity. The cost of these CfDs will be faced by licensed electricity suppliers, who are likely to pass them on to consumers through electricity bills.
- 2. As set out in section 6, evidence suggests that this cost, when considered cumulatively with other policies to incentivise investment in the UK's energy infrastructure, could put at risk the competitiveness of the most Energy Intensive Industries (EIIs) in the UK. In the absence of a global agreement on climate change, some countries have less climate change policy costs, and others already shield EIIs from similar costs. These industries are significant employers and contribute to the low carbon economy through the products they manufacture.
- 3. The Government has set out the eligibility for compensation from the indirect costs of the EU Emissions Trading Scheme (EU ETS), based on European Commission guidelines. Eligibility for compensation from the costs of the Carbon Price Support mechanism (CPS) will be published following EU state aid approval and will be largely based on the European Commission's Indirect ETS compensation guidelines.
- 4. We propose to exempt the most electricity intensive Ells from a proportion of the costs of CfDs. Our aim is to "level the playing field" so that our Ells are not made uncompetitive due to the costs of this policy. In designing the eligibility for an exemption we are taking into account 5 principles, we will:
 - Target companies whose competitiveness is at risk from rising electricity policy costs – i.e. we will only exempt companies that are both electricity intensive and trade intensive.
 - Minimise distortions within the UK economy.
 - Avoid perverse incentives, e.g. discouraging take-up of energy efficiency measures.
 - Minimise administrative burden for all parties Ells, licensed electricity suppliers and Government.
 - Minimise the costs to consumers outside of the scope of the exemption (both business and household) whilst meeting the policy objective.
- 5. This consultation sets out broad options for defining which Ells will be exempt.
- 6. The Government's preferred option is to use the same eligibility criteria as for EU ETS and CPS indirect costs compensation. The impact of this on domestic household bills is estimated at an average of £1.20 to £1.90 a year for the period 2016-2020, or 40-60p per MWh on the price of electricity for all non-exempt consumers.

- 7. We think this option best achieves the balance between costs to other consumers and addressing the competitiveness of the UK. However, we are interested in the views of stakeholders.
- 8. We are interested in views in particular from:
 - Ells;
 - Other businesses and trade associations; and
 - Consumers and consumer groups.
- 9. The following questions are asked:
 - Do you agree with the principles for evaluating exemption eligibility options?
 - Taking account of the 5 principles above, do you agree with the preferred option, 1A?
 - What percentage of costs would an exemption need to be set at to deal with the competitiveness issues raised by EMR CfDs?
 - Are there advantages or disadvantages of any of these options which we have not included?
 - Do you have a preferred option? What factors lead you to prefer that option?
 - Do you anticipate that the redistributive impact of any of the options will cause your household or your business difficulties? Please provide details when responding.
- 10. CfDs will not be available to projects in Northern Ireland before 2016, at the earliest¹. This consultation will therefore only apply to Great Britain. BIS and DECC will continue to work with the Department of Enterprise, Trade and Investment in Northern Ireland (DETI) and Northern Ireland stakeholders, in relation to eligibility for an exemption from the costs of the CfDs as plans progress towards their implementation.
- 11. Consultation responses are requested by 30/08/2013, in order that views can be fed into secondary legislation being developed under the Energy Bill. We will be holding stakeholder events including consumer groups and Ells during July, please get in touch if you would like to attend.

¹ See http://www.detini.gov.uk/deti-energy-index/deti-energy-sustainable/electricity_market_reform.htm

3. How to respond

- 12. When responding please state whether you are responding as an individual or representing the views of an organisation. If you are responding on behalf of an organisation, please make it clear who the organisation represents by selecting the appropriate interest group on the consultation form and, where applicable, how the views of members were assembled.
- 13. The consultation response form is available electronically on the consultation page: https://www.gov.uk/government/consultations/electricity-market-reform-contracts-fordifference-costs-exemption-eligibility (until the consultation closes on 30/08/2013). The form can be submitted online/by email or by letter to:

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14. A list of those organisations and individuals consulted is in Annex C. We would welcome suggestions of others who may wish to be involved in this consultation process.

4. Confidentiality & Data Protection

- 15. Information provided in response to this consultation, including personal information, may be subject to publication or release to other parties or to disclosure in accordance with the access to information regimes (these are primarily the Freedom of Information Act 2000 (FOIA), the Data Protection Act 1998 (DPA) and the Environmental Information Regulations 2004). If you want information, including personal data that you provide to be treated as confidential, please be aware that, under the FOIA, there is a statutory Code of Practice with which public authorities must comply and which deals, amongst other things, with obligations of confidence.
- 16. In view of this it would be helpful if you could explain to us why you regard the information you have provided as confidential. If we receive a request for disclosure of the information we will take full account of your explanation, but we cannot give an assurance that confidentiality can be maintained in all circumstances. An automatic confidentiality disclaimer generated by your IT system will not, of itself, be regarded as binding on the Department.

5. Help with queries

17. Questions about the policy issues raised in the document can be addressed to:

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The consultation principles are in Annex F.

6. The proposals

Contracts for Difference

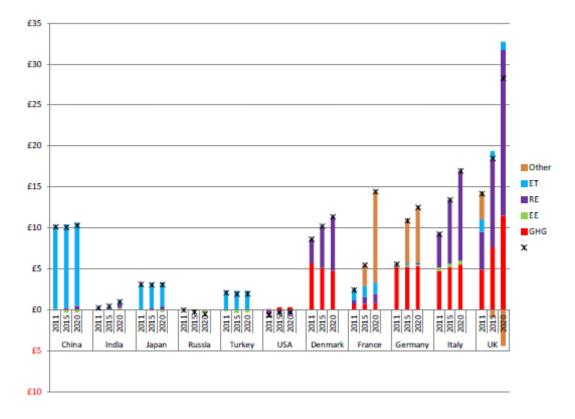
- 18. A significant element of Electricity Market Reform (EMR) is the introduction of a Feed-in Tariff with Contracts for Difference (CfD) regime to support investment in low carbon electricity generation.
- 19. CfDs will provide an incentive for developers to build low carbon electricity generation. They do this by providing a stable price for the electricity generated a 'strike price'. If the market price (i.e. the reference price) is lower than this strike price, the generator will receive a payment for the difference. Similarly, if the market rate is higher than the strike price, the generator will pay the difference.
- 20. The cost of CfDs i.e. the difference between CfD strike prices and the wholesale electricity price will be faced by licensed electricity suppliers. These costs are likely to be passed through to consumer electricity bills. Costs will be collected through the 'supplier obligation', which is the licence requirement for suppliers to pay the costs of CfDs.
- 21. A draft CfD operational framework was published in November 2012 and is available at: https://www.gov.uk/government/publications/electricity-market-reform-policy-overview--2

The need for the exemption

- 22. The CfD regime is one of a number of policies which the Government has put in place to incentivise the necessary investment in the UK's energy infrastructure to meet our challenging decarbonisation goals and maintain security of supply. The CfD was chosen as the support mechanism for low-carbon generation due to its cost effectiveness in meeting the Government's energy policy goals. Cumulatively, however, these policies are anticipated to place upward pressure on the price of electricity over the medium term.
- 23. For electricity intensive manufacturers, increasing electricity prices can pose a risk to competitiveness as:
 - Industrial sites in other countries may be shielded or exempted from similar energy and climate change policy costs meaning they face a lower electricity price overall;

- In the absence of a global approach to climate change, some countries may invest in low carbon generation to a lesser degree and, therefore, will not face comparable policy costs.
- 24. CfD costs will be faced on a per-unit of electricity basis in the same way as the Renewables Obligation and a number of other climate change policies. Industries which are inherently electro-intensive (such as steel and chemical plants) may see their costs increase significantly. More importantly, costs may increase relative to sites in other countries.
- 25. International comparisons, such as those shown in Figure 1, suggest that UK policy costs faced by Ells may be much higher than in other countries, in the absence of any Government intervention. The chart below takes into account the exemptions that existed at the time of publication for industry in other countries and assumes no such exemption for UK-based Ells. Within the EU, the governments of Belgium (Flanders), Denmark, Germany, Republic of Ireland, Norway and Sweden currently make provision in their renewable energy support schemes for supporting Ells. There are a wide range of approaches to reducing costs.

Figure 1 International comparison of energy and climate change policy costs²



² "An intenational comparison of energy and climate change policies impacting energy intensive industries in selected countries" ICF international, July 2012 https://www.gov.uk/government/uploads/system/uploads/attachment data/file/31768/12-527-international-policiesimpacting-energy-intensive-industries.pdf Originally Figure 2B: Indicative incremental impacts in 2011, 2015 and 2020 on electricity price (£/MWh, 2010 prices) of energy and climate change policies - Sensitivity using market forecasts of EUA prices. 'Other' – the incremental costs of other policies including energy policy.

^{&#}x27;ET' - the incremental costs of Energy Taxes e.g. the Climate Change Levy.

^{&#}x27;RE' – the incremental costs of Renewable Energy policy measures e.g. EMR and the RO.

^{&#}x27;EE' - the incremental costs of Energy Efficiency policy measures.

^{&#}x27;GHG' - the incremental cost of GHG policy measures e.g. EU ETS and CPS

^{&#}x27;X' - the final price.

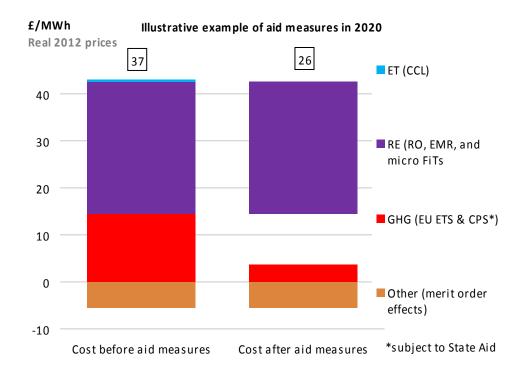


Figure 2 Illustrative example of UK aid measures in 2015-16

- 26. Figure 2 (above) shows the effect of mitigation measures already in place or proposed that provide relief to UK-based EIIs from energy policy costs. However, it does not include relief from EMR/ CfD costs. This consultation considers how best to deal with these additional costs faced by EIIs.
- 27. Where EIIs operate in global markets they are unlikely to be able to pass through these costs in the price of their products. To do so would increase the cost of their products relative to global competitors not facing similar policy costs. Therefore, electricity price increases (such as those involved with the introduction of CfDs) become a risk to their competitiveness. As a result, EIIs may invest overseas in countries with lower policy costs instead of the UK. This can lead to "carbon leakage", where emissions associated with production of goods bought in the UK move overseas.
- 28. The Government seeks to level the playing field for EIIs with their EU and international competitors through a number of measures. We have consulted separately to compensate some EIIs for the indirect effects of two other energy and climate change policies Carbon Price Support (CPS) and the EU Emissions Trading System (ETS). This consultation focuses on eligibility for an exemption for some EIIs from CfD costs.

State Aid

29. All proposals contained within this document and the wider EMR scheme are subject to state aid approval by the European Commission.

- 30. Member States have to notify the Commission of proposals to provide state aid and can only grant it after approval. The Government will notify the design of any exemption relating to Ells to the Commission in due course.
- 31. The Government has already made a case as part of the process to modernise the environmental state aid guidelines. It believes that the future environmental and energy aid guidelines should give a proper recognition to the role of EU-based EIIs in achieving EU energy and climate policy objectives and provide for measures to protect the competitiveness of those that are most at risk of carbon leakage.

How would an exemption work?

- 32. This consultation is focused on eligibility for an exemption scheme, rather than its operation. Further details on operation of the scheme will be included in a consultation on draft secondary regulations to implement the supplier obligation in Autumn 2013.
- 33. An exemption from the costs of CfDs would mean that eligible firms avoid a proportion of the extra costs created by CfDs which would otherwise be added to their electricity bill. The CfD costs faced by licensed electricity suppliers would be adjusted to take into account the scale of the Ell customer base. We would therefore not expect suppliers to incorporate the costs of CfDs in the charges made for the supply of electricity to Ells as CfD costs are not a cost caused by the supply of electricity to such customers. Market competition should ensure that savings made by licensed electricity suppliers are passed on to Ells.
- 34. It is likely that the Government would administer eligibility for the scheme certifying those firms and products which are eligible, following criteria laid out in the eligibility options below. Eligibility will be based on the manufacture of products which are deemed to be both electricity intensive and trade intensive.
- 35. The scheme as a whole will be reviewed by the UK government after 5 years, and after ten years it is likely that the scheme will require fresh state aid approval if it is to continue.

Economic Impact

- 36. The wider economic impacts of the exemption will be assessed using evidence generated by an external research project jointly commissioned by DECC and BIS and undertaken by Vivid Economics Limited. The project will establish an appropriate methodology for assessing the value for money of an exemption and undertake research to improve the evidence base for this approach.
- 37. The methodology will focus on developing a detailed understanding of specific industries and will also use economic modelling to contribute to an understanding of the wider effects of an exemption on the UK economy. The project will develop the evidence base beyond the direct impacts of the exemption which are presented in this consultation document in terms of impacts on electricity prices and bills by looking at the effects on production, employment, wages and distributional impacts in a number of exempt industries as well as in non-exempt sections of the economy.

38. This evidence will be presented in an Impact Assessment on the exemption to be published alongside the consultation on draft secondary legislation to implement the EMR supplier obligation in Autumn 2013.

Principles/ considerations

39. The Government considers that there are some key principles which should underpin eligibility for the CfD exemption. Principles one, four and five provide criteria by which differing options can be evaluated. Principles two and three are the same for all options:

Principle one – an exemption should be targeted at companies whose competitiveness is at risk from rising electricity policy costs – i.e. we should exempt only those companies that are both electricity intensive and trade intensive.

Principle two – eligibility should be designed to minimise distortions within the UK economy.

Principle three – the exemption should avoid perverse incentives, e.g. discouraging take-up of energy efficiency measures.

Principle four – the exemption should minimise administrative burden for all parties – Ells, electricity suppliers and Government.

Principle five – the exemption should minimise the costs to consumers outside of the scope of the exemption (both business and household) whilst meeting the policy objective.

Question 1: Do you agree with the principles for evaluating exemption eligibility options?

- 40. The objective of the CfD exemption is to address the risk to competitiveness associated with the policy costs of the CfD regime. As such, the scope of an exemption should be focused on those businesses most exposed to this risk: those that are electricity intensive and operating in internationally competitive markets.
- 41. The eligibility for the exemption will seek to avoid further distortions. The distortions to be avoided include:
- Exempting one company making a product but not another making the same product;
- Exempting those whose energy use is high only because of poor energy efficiency savings; and
- Penalising companies who reduce their energy intensity through effective energy efficiency measures.
- 42. The exemption will introduce an element of additional complexity. This is unavoidable. However, it is in all parties' interest to keep this to a minimum.

Redistributive impact

- 43. Exempting Ells means that the cost of CfDs would be spread amongst fewer consumers. As stated in Principle 5, avoiding additional costs to household and business consumers as far as possible whilst meeting our objective is central to our overall approach.
- 44. We understand that all consumers are concerned about the cost of electricity. This consultation sets out a range of options, with a view to striking the right balance between addressing the risk to industry (including potential loss of jobs and investment) and minimising the costs to other consumers. It is worth noting that if we failed to address the impact of CfD costs on the competitiveness of Ells and lost industrial activity to sites in other countries, the costs of CfDs would still need to be redistributed amongst those consumers remaining.
- 45. The actual cost in future years, both of CfD payments themselves, and the exemption, are dependent on a number of variables, including wholesale prices, the actual investment attracted into new generation capacity, realised CfD support costs, electricity demand and the final design and scope of the exemption. Although the agreed Levy Control Framework provides some constraint on total future energy and climate change policy costs, we cannot accurately predict the value of the exemption, nor its cost to non-exempt consumers far into the future. The exemption has no effect on the level of the Levy Control Framework.
- 46. DECC's policy impact document suggests that EMR CfDs will add an average of around £5.80/MWh to electricity prices from 2016 to 2020, depending on the type of electricity user³ (albeit £9 lower than would have been the case had existing instruments like the Renewables Obligation continued). The analysis presented in this document suggests that an exemption for EIIs will add an average of between 30p and 80p/MWh to electricity prices for non-exempt consumers from 2016 to 2020 depending on the eligibility option chosen and type of electricity user (in addition to the EMR costs presented in DECCs policy impact document).
- 47. CfDs will be offered to projects in Northern Ireland at a later date to those operating in Great Britain. Whilst the CfD regime will commence in Great Britain from 2014 it will not commence in Northern Ireland before 2016, at the earliest, to take account of any changes needed to the Single Electricity Market as a result of European Electricity Market Integration⁴. Further work is required to analyse the impact on Northern Ireland's large energy users. DECC and BIS will continue to work with the Department of Enterprise, Trade and Investment in Northern Ireland to ensure that Northern Ireland's position is fully considered in analysis going forward. Views from stakeholders in Northern Ireland would still be welcomed at this stage to inform this future work.

Level of costs exempted

48. Unless stated otherwise, impacts are modelled on the assumption of the base scenario of an exemption from 80% of CfD costs.

 $^{^{3} \ \}underline{\text{https://www.gov.uk/government/publications/estimated-impacts-of-energy-and-climate-change-policies-on-energy-prices-and-bills}$

See http://www.detini.gov.uk/deti-energy-index/deti-energy-sustainable/electricity market reform.htm

- 49. As previously highlighted, the UK will have to seek approval from the European Commission to provide state aid under this exemption before it is granted, in line with EU competition law. As part of the approval process it will be necessary to demonstrate that the amount of aid involved has been minimised. The exemption does not fall within the scope of any existing state aid guidelines or frameworks, however the current guidelines on state aid for environmental protection⁵ indicate that the Commission will consider aid in the form of tax exemptions to be proportional if one of the following conditions is met:
 - There is an energy efficiency benchmark;
 - Aid beneficiaries pay at least 20% (or are 80% exempt) of the national tax, unless a lower rate can be justified in view of a limited distortion of competition; and / or
 - Aid beneficiaries have signed climate change agreements.
- 50. Many Ells have already signed climate change agreements to obtain a lower climate change levy. These agreements push industry to deliver challenging levels of energy efficiency in the future. Additionally, energy efficiency benchmarks are complex to administer. Therefore, an exemption for only 80% of the cost, or payment of at least 20% of the costs, aims to help demonstrate that the exemption is proportional.
- 51. Further detail on the methodology and inputs is presented in the analytical annex.

7. Eligibility options

Option 1A – Compensation mirror

- 52. This is the Government's preferred option
- 53. The sectors most at competitive risk from additional costs on the price of electricity are those which are both electricity intensive and which operate in internationally competitive markets. The European Commission, in its guidelines for compensating industry for the indirect costs of the EU ETS, set out a list of sectors and sub sectors that meet these criteria at a European wide level (these are included at Annex E). Sectors were quantitatively assessed as at risk of carbon leakage when, along with trade intensity criteria, indirect additional costs induced by carbon pricing would lead to an increase in production costs amounting to at least 5% of gross value added.
- 54. The Government has also set aside a budget to fund compensation for the indirect costs of the Carbon Price Support mechanism. The eligibility for indirect CPS compensation will be very similar to the ETS compensation scheme. Businesses which are eligible for ETS compensation will also be eligible for CPS compensation. For the CPS compensation scheme, however, the UK is discussing with the

⁵ http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2008:082:0001:0033:EN:PDF

- European Commission whether a few additional products and sectors should be included. A decision by the European Commission is expected in late 2013.
- 55. Under this option, we propose that EMR eligibility should be strictly in line with eligibility for the ETS and CPS compensation schemes. The range of costs set out for this option in Figure 4, indicate uncertainty about the coverage of CPS compensation eligibility.
- 56. Sectors we know will be eligible under this option would include (but are not necessarily limited to) the manufacture of basic iron and steel and of ferro-alloys, the manufacture of certain organic and inorganic chemicals and the manufacture of pulp, paper and paperboard.⁶
- 57. As with Indirect ETS compensation, to become eligible for an exemption from CfD costs, companies would need to pass two eligibility tests:
 - The business must manufacture a product in the UK within an eligible NACE code; and
 - The business must pass the 5% filter test (Carbon costs amounting to 5% of GVA in 2020)⁷.
- 58. At its narrowest range, sectors eligible under this option have a combined value to the UK of roughly £30bn in turnover, employing approximately 80,000 people and contributing 0.4% to UK GVA⁸. Possible additional sectors have a combined value to the UK upwards of £20bn in turnover, employing 80,000 people and contributing approximately 0.6% of GVA.
- 59. This would mean that the widest scope of this option would exempt industries with a total combined value to the UK of roughly £50bn in turnover, employing 150,000 people and contributing 1% of GVA. Clusters of these sectors are to be found in areas of relatively high unemployment such as the Humber, Teesside and South Wales as well as in other locations across the UK.
- 60. Using the same list as the compensation scheme would be consistent with other policies and the European Commission's guidelines. It could also be argued that it targets those most at risk as identified already through the compensation scheme. Aligning the eligibility of the exemption and compensation schemes is likely to have administrative benefits as companies would likely be able to apply once to both schemes. Furthermore, by not widening eligibility beyond ETS/CPS eligible sectors, the redistributive cost impact to others would be limited.
- 61. However, there is a risk that this option could create a "cliff edge" with some companies receiving compensation from EU ETS and CPS and an exemption from CfD costs, while others who have slightly lower policy impacts receive nothing.

⁶ A fuller list is available in the analytical annex.

⁷ Insert link to Indirect ETS Guidance for applicants

⁸ 2007 Standard Industrial Classification codes 1310 and 2016 have been used as a proxy for preparation and spinning of cotton-type fibres and manufacture of plastics in primary forms respectively.

Question 2: Taking account of all of the principles, do you agree with the preferred option, 1A?

Option 1B – Reduced exemption level

- 62. Of course, all consumers will be concerned about rising electricity costs. The Government is concerned to limit the impact of electricity price rises on other consumers (businesses and domestic households).
- 63. This sub-option utilises the same eligibility as Option 1 but reduces the level of the exemption to two-thirds of costs (67%). This has the effect of significantly reducing the redistributive cost to other consumers.
- 64. Using the same list as for EU ETS compensation would be consistent with other policies and the European Commission's guidelines.
- 65. However, significantly reducing the level of the exemption makes it more likely that businesses at risk would be compensated at too low a level to prevent carbon leakage. We would incur the cost of the policy but with a significant risk that we would not achieve the objectives of the policy and sustain significant losses in jobs, revenue and expertise in UK EIIs.
- 66. By not widening eligibility beyond ETS/CPS eligible sectors, the redistributive cost impact to others would be the most limited of any of the options set out in this consultation.

Question 3: What percentage of costs would an exemption need to be set at to deal with the competitiveness issues raised by EMR CfDs?

Option 2a – Eligibility wider than ETS/CPS

- 67. ETS compensation follows European Commission guidelines to determine eligibility. In arriving at the list of eligible products and sectors, the Commission quantitatively assessed sectors as at risk of carbon leakage when, along with trade intensity criteria, indirect additional costs induced by carbon pricing would lead to an increase in production costs amounting to at least 5% of gross value added. For the purposes of an EMR exemption, the '5% test' could be extended to include CfD costs i.e. to include sectors for whom the combined costs of ETS/CPS and CfDs would amount to 5% of GVA in 2020. This would have the effect of widening the number of sectors and products eligible.
- 68. This approach is broadly based on the methodology used by the European Commission in assessing which sectors are most affected by high policy costs and should warrant indirect ETS compensation.
- 69. Competitive risks may not be limited to the most electricity intensive companies. Widening eligibility using an approach based on the Commission's methodology would include more "medium electricity-intensive" companies, potentially further reducing the risk that jobs, growth and investments would move abroad. This option would also deal with the potential of a "cliff edge" to a degree by providing relief for the sectors which are electricity intensive, but do not qualify for ETS/CPS

- compensation. Businesses which are not eligible under this option should not be very electricity intensive. As such, they will be consuming more modest amounts of electricity and should be less exposed to having to pay policy costs plus the additional cost of the exemption.
- 70. This widening does, however, carry a risk of increased deadweight costs relative to option 1 i.e. compensating companies for their costs without affecting their behaviour/investment considerations.
- 71. This should have the same administrative complexity as option 1, albeit for a greater volume of companies. There may be additional costs to government in administering a longer list of eligible companies.
- 72. Widening the eligibility will increase the cost of the exemption relative to other options. This option has the greatest impact in that respect. Additional beneficiaries will have lower energy use than those who are already exempted, meaning that the proportional cost of each company's inclusion in the exemption is lower the wider you draw eligibility.

Option 2b – Compensation plus a taper for additional sectors.

- 73. Under this approach, eligibility could be the same as option 2a i.e. a wider eligibility by applying the 5% test including CfD costs. The amount of exemption, however, could vary between those in the eligibility 'core' and those in the eligibility 'periphery'. For example:
 - Core group sectors eligible for indirect carbon costs compensation. For the purposes of this analysis, it has been assumed that these companies could attract an 80% cost exemption.
 - Taper other sectors which pass the new 5% test (ETS+CPS+CfD costs). For the purposes of this analysis, it has been assumed that these companies would attract a 50% cost exemption.
- 74. The total number of sectors likely to be eligible under this option would be the same as for Option 2a. Therefore the GVA, employment and investment numbers for exempted sectors will be the same.
- 75. As in 2a, this option deals with the 'cliff edge' issue by providing some relief to "medium electricity intensive" industries which are neither eligible for ETS compensation nor, by extension, eligible for the EMR exemption under option 1. This option would mean that such companies would not face the additional cost of the exemption for other EIIs, on top of not receiving compensation for indirect EU ETS costs.
- 76. Depending on how much of an exemption the 'taper' attracted, it could be considered, however, that the additional financial benefit to those companies is too small to affect behaviour. In addition, as with Option 2a, widening eligibility carries a risk of increased deadweight costs relative to Option 1. This could mean compensating companies for their costs without affecting their behaviour/investment considerations.

- 77. The administration of additional eligible companies plus differential exemption rates may mean more complexity in administration. It would also be likely to increase the risk of not obtaining state aid clearance from the European Commission.
- 78. This option would increase the cost to other consumers when compared with Option 1. These costs would, however, be more modest than Option 2a. The additional eligible sectors use significantly less electricity than the 'core' sectors. Therefore a tapered approach could be delivered at relatively little additional cost over and above Option 1 costs.

Question 4: Are there advantages or disadvantages of any of these options which we have not included?

Question 5: Do you have a preferred option? What factors lead you to prefer that option?

Question 6: Do you anticipate that the redistributive impact of any of the options will cause your household or your business difficulties? Please provide details when responding.

Figure 3 Exempted electricity usage - visualisation of eligibility options



This visualisation aims to show the relative sizes of the exemption eligibility options. It is based on total estimated electricity consumption figures for those sectors which we assess would be likely to qualify⁹.

	Option 1A and 1B – Compensation mirror	Option 2a – Compensation +	Option 2b – Compensation + Taper
Total estimated exempt electricity consumption (TWhs)	~20-30	~40	~40
55.155.11pt.151. (1.111.15)		.•	•

⁹ The electricity consumption estimates under each scenario are derived from DECC electricity consumption data and ABI data up to 2007. Beyond 2007 electricity consumption data at a detailed sector level is not readily available and these estimates should be treated as illustrative only.

Figure 4 Impact in pounds and percentage change (Real 2012 prices)

	Average price Average electricity bill impact 2016-2020 in pounds and as a percentage of final bill				
	pounds per MWh 2016-2020 (excl. VAT)	Domestic consumer ¹⁰ (incl. VAT)	Medium- sized business user ¹¹	Eligible company	Company eligible for the taper
EMR support cost (before exemption, incl. Capacity Market)	£5.80	£19.20 3%	£60,300 4%	£555,000 5% ¹²	
		Average additional electricity bill impact 2016- 2020 in pounds and as a percentage change			
Option 1a: Compensation mirror	0.40 to 0.60	£1.20 to £1.90 0.2% to 0.3%	£3,700 to £5,800 0.3% to 0.4%	-£444,000 -4%	N/A
Option 1b: Reduced exemption level	0.30 to 0.50	£1 to £1.60 0.2% to 0.3%	£3,100 to £4,900 0.2% to 0.4%	-£372,000 -3%	N/A
Option 2a: Compensation +	0.80	£2.60 0.4%	£8,100 0.6%	-£444,000 -4%	N/A
Option 2b: Compensation + Taper	0.70	£2.30 0.4%	£7,300 0.5%	-£444,000 -4%	-£278,000 -3%

-

¹⁰ Based on a household consuming an average of 3.2 MWh of electricity after policies 2016-2020.

Based on the consumption of 10,400 MWh of electricity after policies average 2016-2020.

¹² EMR costs for an eligible company are based on a company consuming around 95,000MWh of electricity per year (after the impact of energy efficiency policies). Data is not available to determine the differential between core and taper companies.

8. Consultation questions

- 79. Do you agree with the principles for evaluating exemption eligibility options?
- 80. Taking account of all of the principles, do you agree with the preferred option, 1A?
- 81. What percentage of costs would an exemption need to be set at to deal with the competitiveness issues raised by EMR CfDs?
- 82. Are there advantages or disadvantages of any of these options which we have not included?
- 83. Do you have a preferred option? What factors lead you to prefer that option?
- 84. Do you anticipate that the redistributive impact of any of the options will cause your household or your business difficulties? Please provide details when responding.

9. What happens next?

Responses to this consultation will be considered as part of the project to implement the exemption. A government response will be produced and we will aim to publish this alongside the consultation on draft secondary regulations for the Supplier Obligation. This is currently scheduled for publication in Autumn 2013. Implementation will then proceed in line with wider EMR programme timescales, with the aim of having a functioning mechanism for exempting Ells from CfD costs when they begin.

Annex A: Glossary

Bill impact and price impact – The impact of energy and climate change policies on electricity bills is a combination of the impact on prices and consumption. Price impact is the effect on electricity prices charged by suppliers. This is expressed in pounds per megawatt hour (£/MWh). So electricity may cost £60/MWh with £5/MWh of policy cost included. This would mean a price impact of £5/MWh. Policies (such as energy efficiency) also effect the amount of electricity that is consumed. For example, if policies reduce consumption from 100MWh to 95MWh this will have the effect of offsetting some of the £5/MWh price impact – the bill before policies would be £5500 (100MWh consumed at a price of £55/MWh) and the bill after policies would be £5700 (95MWH consumed at a price of £60/MWh). The total bill impact would therefore be an increase of £200.

CfDs – Contracts for Difference are contracts that guarantee a stable price for electricity generated – a 'strike price'. If the market price is lower than this strike price the generator will receive a payment for the difference. If the market rate is higher, the generator pays the difference.

CPS - Carbon price support to achieve the carbon price floor levels as set out in Budget 2011. http://www.hmrc.gov.uk/budget2013/tiin-1006.pdf

Ells - Energy intensive industries are businesses that operate in a sector in which the average value of energy is 3% or more of production value for the sector and, in addition, meet or exceed an import penetration test of 50% or more or have an energy intensity of 10% or more, and businesses that operate activities that are listed in Part 1 of Schedule 1 to the Pollution Prevention and Control (England and Wales) Regulations 2000.

EMR - Electricity Market Reform is the initiative to make sure the UK remains a leading destination for investment in low-carbon electricity. It is estimated that due to plant closures and the need to replace and upgrade the UK's electricity infrastructure, over the next decade the UK electricity sector will need around £110 billion of capital investment.

EU ETS - the European Union Emission Trading System. http://ec.europa.eu/clima/policies/ets/index_en.htm

GVA - Gross value added is the value of output less the value of intermediate consumption. It is a measure of the contribution to GDP made by an individual producer, industry or sector. GVA at factor cost is GVA at market prices less any indirect taxes plus any subsidies.

Indirect costs - Costs relating to Government energy and climate change policy passed on in electricity prices.

MPANs - A Meter Point Administration Number, Supply Number or S-Number, is a 21-digit reference used in Great Britain to uniquely identify electricity supply points.

Prodcom codes - codes that provide statistics on the production of manufactured goods. The term comes from the French "PRODuction COMmunautaire" (Community Production).

The Compensation Package – The package of measures to compensate for the indirect emission costs due to the EU ETS and CPS, as announced in the Autumn Statement 2011.

Annex B: Additional Analysis

Summary Results

Figure 4 sets out the impact on prices and bills of the existing EMR policy and the proposed exemption options on domestic and non-domestic consumers. Whilst the table shows the average impact for the domestic group, this impact will vary depending on a number of factors such as:

- Household income
- Household type
- Household heating fuel type

The rest of this annex sets out the potential distributional impact on domestic consumers of the three factors set out above; in addition we have sought to examine the potential impact on fuel poverty of the four options proposed in this consultation.

Distributional Impact on domestic consumers:

The impact of each of the four exemption options on domestic electricity bills in 2020, across different consumer groups, is presented below. Though there is uncertainty about the overall impact an exemption may have, we know more about how the relative burden will fall on consumers – as illustrated by all four exemption options having similar profiles across the expenditure deciles¹³.

Expenditure decile

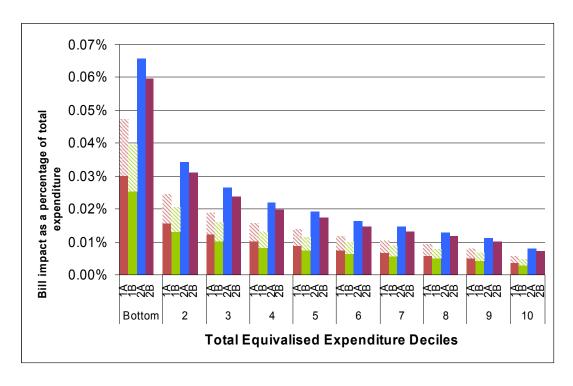
The chart below shows the impact of the exemption on the average energy bills for each (equivalised) expenditure decile, as a percentage of their total (un-equivalised) expenditure in 2020.¹⁴

¹²

¹³ The relative impact of the exemption on different consumer groups in other years is expected to be the same as that presented in 2020, although the absolute impact would be different. For example, the absolute impacts will be larger for years in which the cost of the exemption is greater.

¹⁴ Equivalised expenditure is a measure of household expenditure that takes account of the differences in a household's size and composition, and thus is equivalised (or made equivalent) for all household sizes and compositions. DECC uses the OECD equivalisation scale for this analysis.

Electricity bill impact as percentage of total expenditure in 2020 by expenditure decile



Source: DECC

In 2020, all exemption options result in consumer expenditure on electricity rising, as a proportion of total expenditure (reflecting the increase in bills). However, the impact as a percentage of total expenditure declines with expenditure decile. The exemption has the largest impact, in terms of a proportion of total expenditure, on consumers in the lowest expenditure decile. This is because energy bills typically represent a greater proportion of total spending for households in lower expenditure deciles.

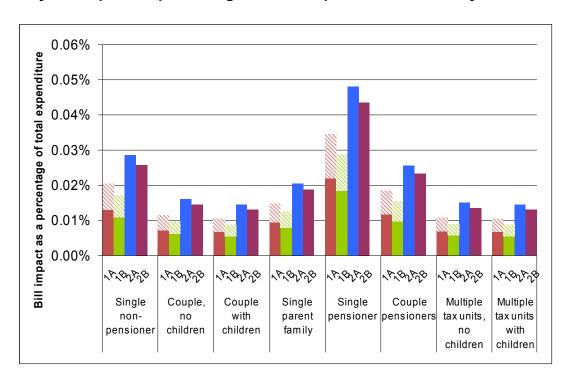
Household Type

As shown in the chart below, single pensioner households are likely to face a proportionally larger impact on their expenditure on electricity from the exemption. This is primarily because they have lower overall expenditure, and so energy bills make up a greater proportion of their total spend. Couples with and without children are likely to face the proportionately smallest impact.¹⁵

¹⁵ Multiple tax units refer to instances where several people who are not related occupy the same address

25

Electricity bill impact as percentage of total expenditure in 2020 by household type



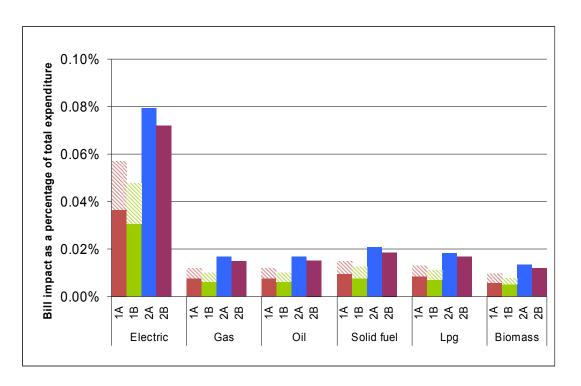
Source: DECC

Heating Fuel Type

The impact of the exemption does not vary across the majority of heating fuel types. The exception is households which are electrically heated. These households will consume a significantly larger amount of electricity, and thus are more sensitive to changes in the price of electricity.

Electricity bill impact as percentage of total expenditure in 2020:

by heating fuel type



Source: DECC

As shown in the chart above, for electricity-heated consumers, the exemption could increase the proportion of total expenditure spent on electricity by up to 0.08%. In contrast, the largest impact for other heating fuel type consumers is around 0.02%.

Fuel Poverty

In addition to the impact of the exemption on different domestic consumer groups, an assessment of the impact on the number of households in fuel poverty has also been made. Our analysis of the four options presented in the consultation indicates that the impact on fuel poverty levels would be minimal.

These projections should be treated with caution, as they only reflect projected changes in price and incomes between 2010 and 2030. They do not take into account changes to the housing stock (i.e. new builds or demolitions), nor do they take into account measures to improve properties, such as cavity wall insulation and loft insulation. However, it is likely that the housing stock will improve considerably in this time period.

Annex C: Estimating Price and Bills Impact

A description of how the price and bill impacts of the exemption are derived is presented below. The DECC policies impact document presents the estimated cumulative impact of energy and climate change policies on energy prices and bills for households and businesses.

The latest report suggests that EMR could increase household electricity prices by £10/MWh in 2020 and £25/MWh in 2030 (Real 2012), relative to the no-policy baseline used in that document. These price impacts reflect the support cost associated with the EMR policy package, including both the CfD and Capacity Market. The generation mix is based on the EMR reference case, published alongside the Energy Bill in November 2012 and updated in February 2013.

The policies impact document did not include the impact of an exemption from CfD support costs, and as a result EMR support costs are distributed evenly across all electricity consumers. To assess the impact of the exemption, we use results from the latest policy impacts document, but vary the groups that pay EMR support costs. As such, the results presented in the policy impacts document provide a 'baseline position' from which we assess the net or marginal impact of exempting some groups from contributing towards CfD support costs.

Price impact of EMR

The price impact of EMR presented in the policies impact document (£10/MWh in 2020) reflects an estimate of total EMR support costs i.e. the combined impact of Contracts for Difference (CfD) support costs and Capacity Market (CM) support costs – relative to total electricity sales in 2020. 18

Price impact of an exemption from CfD support costs

The impact of the exemption is assessed by assuming that the exemption will result in support costs being recovered across a smaller volume of electricity sales. In this way, the policy options presented in this consultation are converted into indicative electricity demand levels, which would be exempt from CfD support costs. The electricity demand scenarios are estimated based on historic electricity consumption levels from sectors that may be eligible for the exemption. By reducing the volume of sales over which CfD support costs are recovered, the cost per unit of electricity consumed increases.

If it is assumed that the level of the exemption were to be some proportion of CfD support costs (say, x%), then consumers in the exemption group would contribute a smaller proportion towards total CfD support costs, defined by:

¹⁸ For household consumers 5% VAT is also included

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/172923/130326_-Price and Bill Impacts Report Final.pdf

¹⁷ This is characterised by a diversified supply mix and an illustrative decarbonisation level of 100gCO₂/kWh in 2030, which represents a specific state of the world and is not intended to be a prediction or forecast about the future. In this scenario, one nuclear plant starts operating in 2020, two CCS demos are initiated and around 30% of generation comes from renewables by 2020. This is also consistent with meeting the budget implied by the Levy Control Framework in 2020.

$$CfD \ support \ costs_{exempt} = (1 - x) \left(\frac{sxempt \ sales}{Total \ sales} \right) (CfD \ support \ costs)$$

In words, the exempt group's CfD support cost payments would be some proportion of the ratio of exempted electricity sales to total sales in that year (defined by the level of the exemption, x), multiplied by the total CfD support costs to be recovered.

Therefore the CfD support costs paid by the non-exempt group would include both the proportion that they would contribute without an exemption, plus the total costs the exempt group no longer pay:

$$CfD\ support\ costs_{non-exempt} = \left(\frac{Non-exempt\ sales}{T\ otal\ sales}\right)(CfD\ support\ costs) + \\ (x)\left(\frac{Sxempt\ sales}{T\ otal\ sales}\right)(CfD\ support\ costs)$$

This means that on a £/MWh basis, the cost of the exemption to non-exempt consumers is given by the pre-exemption price per MWh, multiplied by a price increase factor. This multiplicative factor is determined by the ratio of exempt sales to non-exempt sales, weighted by the level of the exemption.

Illustrative example

In 2020 the policy impacts document suggests that without an exemption CfDs would add £10/MWh to household electricity prices. Under option 1a, we assess the impact of exempting an upper limit of 30 TWhs of electricity sales from contributing towards total CfD support costs (with an exemption of 80%). The proportion of non-exempt sales to total sales in 2020 under this option is around 89%, with the 30 TWhs of exempt sales representing around 11 per cent of total sales. Based on an 80% exemption, around 9 per cent of the exempt sectors costs are re-distributed to the non-exempt sector therefore, and the net impact of exemption is to increase non-exempt groups electricity prices by 9 per cent multiplied by £10, or around £1 per MWh.

For the analysis presented in this consultation, the price impacts from the marginal impact of the exemption on electricity prices are calculated as described above. Associated bill impacts are determined based on baseline bills and assumed consumption levels consistent with DECC's latest policy impacts report.

These price and bill impacts abstract from a number of important considerations which will influence the realised price and bills impact of the CfD exemption in future years. Such factors include:

- Realised CfD support costs in future years;
- Total electricity sales in future years;
 Electricity sales in exempt sectors in future years¹⁹.

¹⁹ This assessment has assumed an indicative volume of exemption which remains the same up to 2030. The volume of eligible electricity sales may change over time.

Annex D: Administering the scheme

We anticipate that Government would administer the eligibility for this scheme. Companies who meet the defined eligibility test would be provided with a certificate/letter entitling them to the exemption. This would be subsequently presented to the firm's electricity supplier.

How suppliers then carry out the exemption will be developed by them working with government and industry.

Two potential options currently being considered for isolating and communicating exempt EII electricity consumption are:

- 1) Physically tagging relevant meters (using MPAN codes) on specific sites where exempt electricity is being consumed.
- 2) Using consumption data for MPANS held on suppliers databases and separating out exempt usage through a formula.

Communication of isolated (and disaggregated at regional level) data through to Elexon may take the form of the creation of a new measurement class (in to which relevant MPAN data would be incorporated) Alternatively (depending on the method of data isolation) an MPAN level of detail may need to be maintained in isolation and communicated to Elexon.

The exemption would be delivered through the supplier obligation; firms would need to provide their electricity supplier with the reference number of the meters²⁰ relevant to production eligible for an exemption. Electricity suppliers will provide information about the amount of electricity supplied in respect of such production to the CfD counterparty (and/or Elexon as its settlement agent). The CfD counterparty (or its agent) will use this information to exclude the amount of electricity supplied in respect of such production in the calculation of supplier's liabilities for the supplier obligation.

²⁰ Using the reference number normally referred to as 'MPANS'

Annex E: ETS Sectors

Sectors and subsectors deemed *ex-ante* to be exposed to a significant risk of carbon leakage due to indirect emission costs

For the purposes of these Guidelines, an aid beneficiary's installation may receive State aid for indirect emission costs under Section 3.3 of these Guidelines, only if it is active in one of the following sectors and subsectors. No other sectors and subsectors will be considered eligible for such aid.

- 1. 2742 Aluminium production
- 2. 1430 Mining of chemical and fertiliser minerals
- 3. 2413 Manufacture of other inorganic chemicals
- 4. 2743 Lead, zinc and tin production
- 5. 1810 Manufacture of leather cloths
- 6. 2710 Manufacture of basic iron and steel and of ferro-alloys, including seamless steel pipes
- 7. 2112 Manufacture of paper and paperboard
- 8. 2415 Manufacture of fertilisers and nitrogen compounds
- 9. 2744 Copper production
- 10. 2414 Manufacture of other organic basic chemicals
- 11. 1711 Spinning of cotton-type fibres
- 12. 2470 Manufacture of man-made fibres
- 13. 1310 Mining of iron ores
- 14. The following subsectors within the Manufacture of plastics in primary forms sector (2416):
- 24161039 Low-density polyethylene (LDPE)
- 24161035 Linear low-density polyethylene (LLDPE)
- 24161050 High-density polyethylene (HDPE)
- 24165130 Polypropylene (PP)
- 24163010 Polyvinyl chloride (PVC)
- 24164040 Polycarbonate (PC)

15. The following subsector within the Manufacture of pulp sector (2111):

21111400 Mechanical pulp

Source: Annex II of:

http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:C:2012:158:0004:0022:EN:PDF

Annex F: Consultation principles, comments and complaints

The principles that Government departments and other public bodies should adopt for engaging stakeholders when developing policy and legislation are set out in the consultation principles:

http://www.cabinetoffice.gov.uk/sites/default/files/resources/Consultation-Principles.pdf

Comments or complaints on the conduct of this consultation

If you wish to comment on the conduct of this consultation or make a complaint about the way this consultation has been conducted, please write to:

John Conway, BIS Consultation Co-ordinator, 1 Victoria Street, London SW1H 0ET

Telephone John on 020 7215 6402

or e-mail: john.conway@bis.gsi.gov.uk

However if you wish to comment on the specific policy proposals you should contact the policy lead (see section 6).

Annex G: Electricity Market Reform: Eligibility for an exemption from the costs of Contracts for Difference response form

The Department may, in accordance with the Code of Practice on Access to Government Information, make available, on public request, individual responses.

The closing date for this consultation is 30/08/2013.

Name:

Organisation (if applicable):

Address:

Please return completed forms to:

Energy Intensive Industries EMR Exemption Project Orchard 2, 4th Floor 1 Victoria Street London SW1H 0ET

Business representative organisation/trade body
Central government
Charity or social enterprise
Individual
Large business (over 250 staff)
Legal representative
Local Government
Medium business (50 to 250 staff)
Micro business (up to 9 staff)
Small business (10 to 49 staff)
Trade union or staff association
Other (please describe)

Question 1 Do you agree with the principles for evaluating exemption eligibility options?
Question 2 Taking account of all of the principles, do you agree with the preferred option 1A?
Question 3 What percentage of costs would an exemption need to be set at to deal with the competitiveness issues raised by EMR CfDs?
Question 4 Are there advantages or disadvantages of any of these options which we have not included?

Question 5: Do you have a preferred option? What factors lead you to prefer that option?
Question 6: Do you anticipate that the redistributive impact of any of the options will cause your household or your business difficulties? Please provide details when responding.
Do you have any other comments that might aid the consultation process as a whole?
Please use this space for any general comments that you may have, comments on the layout of this consultation would also be welcomed.
Thank you for taking the time to let us have your views. We do not intend to acknowledge receipt of individual responses unless you tick the box below.
Please acknowledge this reply
At BIS we carry out our research on many different topics and consultations. As your views are valuable to us, would it be okay if we were to contact you again from time to time either for research or to send through consultation documents?
☐ Yes ☐ No

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