



HM Government

# **Consultation on implementing an exemption for Energy Intensive Industries from the indirect costs of the Renewables Obligation and Feed-in Tariff Schemes**

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**Respond by:** 23:45 on 27 May 2016

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**How to respond:**

Your response will be most useful if it is framed in direct response to the questions posed, though further comments are also welcome. Where possible, responses should be submitted electronically via the e-consultation available at:

<https://econsultation.decc.gov.uk/decc-policy/consultation-on-implementing-an-exemption-for-eiis>

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## Executive summary

Government is committed to moving to a low-carbon economy and meeting its carbon reduction and renewable energy targets. However, the indirect cost of supporting renewable electricity deployment measures, such as the Renewables Obligation and Feed-in Tariff, risks certain energy intensive industries being placed at a significant competitive disadvantage where they operate in international markets. These industries are often large employers and form a vital part of the UK economy.

Government therefore announced that it will provide an exemption for eligible Energy Intensive Industries (EIs) from the indirect costs of the Renewables Obligation (RO) and Feed-in Tariff (FIT) schemes, to ensure that they have long-term certainty and remain competitive. This forms part of a comprehensive package of support for EIs, which currently includes a compensation scheme for the indirect costs of the RO and FIT.

However, transitioning from a compensation scheme to an exemption would have a number of benefits for EIs, notably that support will be faster, more accurate and more certain. Once implemented, the exemption will reduce the electricity bills of eligible EIs.

There will be a consequent increase in the electricity bills of consumers not eligible for the exemption (i.e. households, businesses and non-eligible large energy users). The changes are set out in full in the accompanying impact assessment (IA). This increase for non-exempt consumers should be considered in the context of the action the Government has taken and continues to take to increase competitiveness in the electricity supply sector and to reduce overall consumer bills. Even with the exemption, there will be an overall decrease<sup>1</sup> of £30 on average household bills.

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<sup>1</sup> Based on the current EI eligibility criteria for the CFD exemption and RO and FIT compensation scheme – see chapter two.

This consultation sets out how the Government proposes to implement the exemption.

Under the RO and FIT schemes a supplier's obligation or liability to pay the costs of supporting renewable generation is in proportion to that supplier's market share<sup>2</sup>. We propose to change each scheme so that a supplier's market share does not include a certain portion of its supply to each (if any) of its eligible EI customers. We expect the supplier will pass this saving through to its EI customers.

We propose to make the RO and FIT scheme exemption available to the same EIs that are eligible for the RO and FIT compensation scheme and the CFD exemption. EIs will not be required to apply for certification under the RO and FIT schemes. Instead, an EI certified for the purpose of the CFD exemption will be eligible for the RO and FIT exemptions.

We propose to implement the exemption in relation to the FIT scheme in Great Britain and in relation to the RO in England and Wales. The Scottish Government are consulting separately on proposals to implement the exemption in relation to the RO in Scotland.

Subject to stakeholders' views, state aid approval and Parliamentary approval, if we decide to proceed with the proposals we intend to bring them into effect in April 2017. We will confirm the intended timetable in the Government Response to this consultation.

A summary of all the consultation questions can be found Chapter 7.

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<sup>2</sup> For the purpose of the FIT, a supplier's market share excludes a certain amount of supply sourced from overseas renewable generators.

# Chapter 1

## Introduction

### Background

1.1 This chapter sets out the background and purpose of the proposed exemption for EILs from the indirect costs of the RO and FIT schemes.

1.2 The UK Government is committed to reducing carbon emissions in a way that is consistent with meeting legally binding targets – a reduction of greenhouse gas emissions by at least 80% by 2050 and generating 15% of the UK's energy consumption from renewable sources by 2020. In December 2015 the UK was one of the 195 signatories of the Paris climate change agreement<sup>1</sup> that committed all parties to act together to combat climate change. This included the long-term goal of keeping the increase in global average temperature to well below 2°C above pre-industrial levels.

1.3 To meet these carbon reduction and renewable energy targets the UK economy, including the energy market, must be transformed. Throughout this transformation, energy costs for businesses and consumers must be controlled and the UK's international competitiveness must be maintained.

1.4 Key elements of the Government's approach to decarbonising the energy market are policies designed to incentivise the generation of renewable electricity. These policies include the RO and the FIT schemes; the costs of funding these schemes are recovered through levies on energy suppliers and ultimately passed through to consumer electricity bills.

1.5 This potentially creates a cost differential between UK EILs and EILs in other countries, and risks certain EILs being put at a significant competitive disadvantage. The Government therefore announced in Budget 2014 that it would compensate certain EILs for the indirect cost of the RO and FIT scheme, alongside an exemption from the costs of Contracts for Difference (CFDs). Subsequently, the Government announced in the 2015 Spending Review a transition from the RO and FIT compensation scheme to an exemption from the costs of the RO and FIT.

### The importance of EILs to UK economy

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<sup>1</sup> <https://www.gov.uk/government/news/world-agrees-historic-global-climate-deal>



1.6 After declining during the recession, ELLs have grown and contributed around £51.5 billion in gross value added (GVA) to the UK economy. This is around 3.4% of total UK GVA. By 2013 their exports were valued at £93.6 billion or just over 18% of total UK exports. In 2013, ELLs employed over 575,000, approximately 1.8% of the UK workforce.

### **Support in place for ELLs**

1.7 The Government recognises that, in the short to medium term, the burden on retail industrial electricity prices from the RO and FIT scheme risks putting certain ELLs at a competitive disadvantage where they are operating in internationally competitive markets. The transition to a low carbon economy presents particular challenges for these industries, notably that:

- The costs of renewable support mechanisms are generally borne on a per-unit of electricity basis. Industries which are electricity-intensive will see their costs increase significantly.
- In the absence of a legally binding global renewable energy agreement, some countries may not be subject to binding renewable targets and therefore may not impose comparable renewable policy costs on their energy consumers. This impacts the competitiveness of domestic ELLs operating within international markets.
- Similarly, some other countries that do have a binding renewable target have also put measures in place to mitigate the cost of achieving it for their ELLs, for example Germany, the Netherlands and France.

1.8 ELLs play an important role in the move to a low carbon economy through the products they manufacture and innovation they foster. Without support such as the compensation paid to ELLs, the financing of renewable energy support may be unsustainable and public acceptance of such measures may be limited.

1.9 The Government is taking a broad range of actions to help industry offset the cumulative impact of energy and climate change policies on industrial electricity prices, including exemptions from some measures and payment of compensation for others. The Department of Business Innovation & Skills (BIS) administers the schemes compensating ELLs for the indirect costs of the EU Emission Trading System and the Carbon Price Support Mechanism. BIS is also administering the scheme compensating ELLs for the indirect costs of the RO and FIT schemes.

1.10 In addition, the March 2016 Budget announced<sup>2</sup> reforms to business energy tax, including abolishing the CRC energy efficiency scheme (CRC) following the 2018-19 compliance year, increasing the Climate Change Levy (CCL) from 2019 and rebalancing CCL rates for different fuel types to reflect recent data on the fuel mix, and keeping existing Climate Change Agreement (CCA) scheme eligibility criteria in place until at least 2023 used in electricity generation.

### **Shifting from compensation to an exemption**

1.11 Compensation for the indirect costs of the RO and the FIT scheme is currently paid based on historical consumption levels after a reconciliation process. Switching to an exemption will:

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<sup>2</sup> <https://www.gov.uk/government/publications/budget-2016-documents>

- Provide real time support – an exemption would effectively reduce the price paid for electricity by eligible EILs as the electricity is consumed, improving short term cash flows and potentially lowering production costs.
- Provide increased accuracy of support – the historical basis of the compensation scheme means that the support may not accurately reflect the indirect costs faced. The exemption would be based on actual consumption rather than historic consumption levels as under the compensation scheme.
- Provide greater certainty of support – currently compensation is paid from departmental budgets, which can fluctuate over time and are subject to competing demands for support. An exemption would be set out in amendments to legislation and therefore require Parliamentary approval to change the support provided in the future. The move to the exemption will also reduce government spending.

1.12 Moving from compensation to implementing an exemption through changes to the RO and FIT legislation could improve investment certainty and result in lower costs of production, improved competitiveness and potentially have a positive impact on employment and output. This move will also reduce government spending. All this supports the Government's long term economic plan.

### **The current compensation scheme for indirect costs of RO and FITs**

1.13 Budget 2014 announced that Government would implement a compensation scheme for the indirect costs of the RO and FIT scheme for EILs, subject to state aid approval based on the European Energy and Environmental Guidelines<sup>3</sup> (EEAG).

1.14 A consultation on eligibility criteria for the scheme was published by BIS and held between 31 July and 24 October 2014, with the Government response published on 19 January 2015<sup>4</sup>. State Aid approval for the scheme was received from the European Commission on 17 December 2015. In January 2016 the compensation scheme opened to applications.

1.15 BIS guidance<sup>5</sup> sets out the formula for the level of aid calculation and the eligibility criteria for the scheme. Please see Chapter 2 for further details.

### **The exemption from the indirect costs of Contracts for Difference (CFD)**

1.16 In parallel with the BIS consultation on EIL eligibility criteria, a DECC consultation was published on how an exemption for EILs from the indirect costs of CFDs would be administered and implemented. Legislation establishing an exemption for EILs from the indirect costs of CFDs was published in 2015.

1.17 When the European Commission granted state aid approval in December 2015 the approval was for both the RO and FIT compensation scheme and the CFD exemption. Minor amendments are required to the Electricity Supplier Obligations Regulations before the exemption can enter into force. They will be amended to

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<sup>3</sup> Guidelines on State aid for environmental protection and energy 2014-2020, 2014/C 200/01

<sup>4</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/395809/bis-15-31-electricity-intensive-industries-relief-from-the-indirect-costs-of-renewables-government-response-to-the-public-consultation.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/395809/bis-15-31-electricity-intensive-industries-relief-from-the-indirect-costs-of-renewables-government-response-to-the-public-consultation.pdf)

<sup>5</sup> <https://www.gov.uk/government/publications/renewables-obligation-and-small-scale-feed-in-tariffs-apply-for-compensation>

reflect the same application process and eligibility criteria as set out in the guidance for the RO and FIT compensation scheme<sup>6</sup>.

### **Our proposal for implementing the exemption**

1.18 The Spending Review 2015<sup>7</sup> set out that “the government will provide an exemption for Energy Intensive Industries, including the steel industry, from the policy costs of the Renewables Obligation and Feed-in Tariffs, to ensure that they have long-term certainty and remain competitive.”

1.19 This consultation sets out proposals for how we plan to deliver the exemption. It considers territorial scope and looks in detail at the changes that will need to be made to the operation and administration of the RO and the FIT schemes.

1.20 We propose to make the necessary changes to the RO and the FIT scheme through amending secondary legislation. The proposals set out in this consultation document are subject to obtaining Parliamentary approval and state aid approval from the European Commission. Subject to these approvals, we propose bringing the changes into force and replacing the compensation scheme from 1 April 2017.

1.21 We will periodically monitor and evaluate the RO and FIT exemption scheme. A review will take place no later than summer 2020.

### **Transition from compensation to an exemption**

1.22 Once implemented, the exemption will reduce the electricity bills of eligible EIs with a consequent increase for those consumers not eligible for the exemption (i.e. households, businesses and non-eligible large energy users).

1.23 Based on current eligibility criteria, the average best estimate of increases in energy bills per annum are £5 for household bills, £360 for small business energy users, £15,000 for medium sized energy users and £140,000 for non-exempt large sized energy users (£2016 prices).<sup>8</sup>

1.24 This increase for non-exempt consumers should be considered in the context of the action the Government has taken and continues to take to increase competitiveness in the electricity supply sector and to reduce overall consumer bills. This action includes replacing the existing Energy Company Obligation (ECO) from April 2017 with a new supplier obligation, which will be cheaper than the previously published ambition for the same period. It also includes cost control measures for the RO (such as closing the scheme to large-scale solar PV) and the FIT schemes (such as lower tariffs and caps) schemes themselves. Based on the current eligibility criteria, even with the exemption, this represents an overall decrease of £30 on average household bills.

1.25 As set out above, the exemption will provide a number of benefits to EIs compared to the compensation scheme, notably providing faster, more accurate and more certain levels of support. There may also a small impact on fuel poverty levels, levels of investment in energy efficiency measures and emissions levels. These are set out in the impact assessment (IA).

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<sup>6</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/503629/BIS-16-139-guidance-compensation-for-indirect-costs-renewables-obligation-small-scale-feed-in-tariffs.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/503629/BIS-16-139-guidance-compensation-for-indirect-costs-renewables-obligation-small-scale-feed-in-tariffs.pdf)

<sup>7</sup> <https://www.gov.uk/government/publications/spending-review-and-autumn-statement-2015-documents>

<sup>8</sup> Section 9 of the accompanying impact assessment.

## **Draft impact assessment**

1.26 A draft IA has been published alongside this consultation document. The IA provides estimates of the benefits and costs of the proposed exemption.

## **State aid**

1.27 The EEAG allow Member States to grant aid to certain energy-intensive sectors at risk of being put at a significant competitive disadvantage due to renewable financing policies. Government seeks to target support for EILs where it would be most effective and therefore consulted on eligibility criteria for the CFD exemption and the RO and FIT compensation scheme. The eligibility criteria are set out in detail in the guidance for the RO and FIT compensation scheme published in January 2016 and updated in February 2016.

1.28 We propose to make the RO and FIT scheme exemption available to the same EILs that are eligible for the RO and FIT scheme compensation scheme and the CFD exemption. This will ensure consistency, compliance with the EEAG and a smooth transition.

1.29 We expect to submit a pre-notification for this to the European Commission shortly and, if appropriate, a full notification shortly after the publication of the government response to this consultation.

## **Consultation Questions**

1.30 This section sets out the questions we are seeking respondents' views on in this chapter:

- 1 Do you agree with the main benefit to EILs of implementing the exemption through changes to the RO and FIT legislation being greater certainty as well as more accurate and faster support, compared with compensation? Please provide evidence and a quantification of the impact.
- 2 For non-exempt businesses, to what extent do you think the estimated increase in electricity bills will affect competitiveness and decisions regarding output, employment and investment? Please provide evidence and a quantification of the impact.
- 3 For householders, what will be the impact of the estimated increase in electricity bills?



## Chapter 2

# EI eligibility

### **EI eligibility**

2.1 This chapter sets out the proposed eligibility criteria for the RO and FIT exemption.

### **Eligibility criteria**

2.2 The Government consulted on eligibility criteria for the scheme compensating EIs for the indirect costs of the RO and FIT scheme and the exemption from CFD costs in July 2014<sup>1</sup>. The Government response was published in January 2015<sup>2</sup> and guidance for applicants<sup>3</sup>, which sets out eligibility criteria and the application process, published in January 2016.

2.3 We propose to make the RO and FIT scheme exemption available to the same EIs that are eligible for the RO and FIT scheme compensation scheme and the CFD exemption.

2.4 The EEAG provide guidance to Member States on which electricity intensive sectors can be eligible for aid for the indirect costs of renewable energy deployment. This guidance was used to determine the UK sectors that will be eligible for the compensation scheme, with criteria further refined to sectors with a trade intensity of at least 4% and an electricity intensity of at least 7% to target eligibility to the sectors which are the most electricity intensive and subject to international competition.

2.5 The EEAG also allows European Member States to provide aid for the indirect costs of renewables to energy intensive businesses from typically non energy intensive sectors. Sector eligibility was also narrowed using Annual Business Survey data on trade intensity and electricity-intensity of the sector.

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<sup>1</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/359649/BIS\\_14\\_995-EIs\\_-\\_Relief\\_from\\_the\\_indirect\\_costs\\_of\\_Renewables\\_-\\_consultation\\_on\\_eligibility\\_revised\\_doc.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/359649/BIS_14_995-EIs_-_Relief_from_the_indirect_costs_of_Renewables_-_consultation_on_eligibility_revised_doc.pdf)

<sup>2</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/395809/bis-15-31-electricity-intensive-industries-relief-from-the-indirect-costs-of-renewables-government-response-to-the-public-consultation.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/395809/bis-15-31-electricity-intensive-industries-relief-from-the-indirect-costs-of-renewables-government-response-to-the-public-consultation.pdf)

<sup>3</sup> <https://www.gov.uk/government/publications/renewables-obligation-and-small-scale-feed-in-tariffs-apply-for-compensation>

2.6 A business electricity intensity test for each business then ensures that the schemes target only the most electricity-intensive businesses, i.e. those put at a significant competitive disadvantage from renewable energy support cost. Businesses need to show their implied mean electricity costs amount to 20% of their mean Gross Value Added (GVA).

2.7 The eligibility criteria, as consulted on and defined in BIS guidance<sup>4</sup>, received State Aid approval from the European Commission on 17 December 2015.

2.8 The Government has also submitted a state aid notification to the European Commission with the aim of addressing potential intra-sectoral competitive distortions as a result of eligibility being based on electricity-intensity criterion only. It will continue to pursue the proposals in this notification with the European Commission.

2.9 There is therefore the potential for the eligibility criteria and level of aid provided to be updated, subject to European Commission approval. Any updates on EIL eligibility will be posted on the Government's website<sup>5</sup>.

### **Consultation Questions**

2.10 This section sets out the questions we are seeking respondents' views on in this chapter:

- 4 We propose to make the RO and FIT scheme exemption available to the same EILs that are eligible for the RO and FIT scheme compensation scheme and the CFD exemption. Do you agree? If not, what alternatives should be considered?

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<sup>4</sup> <https://www.gov.uk/government/publications/renewables-obligation-and-small-scale-feed-in-tariffs-apply-for-compensation>

<sup>5</sup> <https://www.gov.uk/guidance/energy-intensive-industries-compensation-for-carbon-leakage>

# Chapter 3

## The Renewables Obligation

### The Renewables Obligation

3.1 This chapter sets out and seeks views on how we propose to modify in England and Wales, the methodology for setting the renewables obligation, and the scope of the obligation, to account for a proportion of electricity supplied to eligible EILs. We are also proposing a minor change to the end of year reporting requirements for suppliers. It also proposes changes to the arrangements for publishing the final obligation level for the 2017/18 obligation period.

### Definitions

3.2 In this chapter and the associated annexes, we refer to:

- the **“total obligation”** to mean the total estimated demand for ROCs in the UK.
- the **“obligation level”** to mean the number of UK ROCs (per megawatt hour (MWh) of electricity supplied) that each supplier must present to Ofgem in respect of electricity supplied to customers during an obligation period, in order to discharge its renewables obligation.
- **“EIL excluded electricity”** to mean up to 85% of electricity supplied to eligible EILs in England and Wales.

### How the RO works

3.3 The RO has been the main financial mechanism since 2002 by which the Government incentivises the deployment of large-scale renewable electricity generation in the UK.

3.4 The RO places an obligation on UK electricity suppliers must submit the relevant number of ROCs to Ofgem for each megawatt hour (MWh) of electricity that they supply. This number – called ‘the obligation level’ – is set six months ahead of the start of the obligation year (which runs from 1 April to 31 March) and has increased annually since the RO was introduced in 2002.

3.5 The RO is administered by Ofgem, who issues Renewables Obligation Certificates (ROCs) to generators accredited under the scheme in relation to the renewable electricity they generate and the technology type. Generators can sell



ROCs to suppliers or traders, with or without the electricity generated, as tradable commodities. Their value is a matter for negotiation between the generator and supplier/trader.

3.6 Suppliers present ROCs to Ofgem to demonstrate their compliance with the obligation. Suppliers failing, or choosing not, to present enough ROCs to meet their obligation make a payment per ROC into a buy-out fund. The money collected by Ofgem in the buy-out fund is recycled on a pro-rata basis to suppliers who presented ROCs after Ofgem's administration costs have been deducted.

### **Territorial scope of the exemption**

3.7 The RO works on the basis of three complementary obligations on suppliers, one covering England and Wales, and one each covering Scotland and Northern Ireland. The rules on calculating the obligation level for individual suppliers in respect of electricity supplied to customers in Scotland are set out in the Renewables Obligation (Scotland) Order 2009 ("RO Scotland") as amended. The rules on calculating the obligation level for individual suppliers in respect of electricity supplied to customers in Northern Ireland are set out in the Renewables Obligation Order (Northern Ireland) 2009 as amended.

3.8 The Scottish Government will be consulting separately on proposals to introduce the exemption under the RO Scotland from 2017/18. However, the changes DECC is proposing to the methodology for setting the obligation level in England and Wales and to the scope of the obligation described in this chapter assume that Scotland will implement the exemption by making similar changes, as does the Impact Assessment.

3.9 The Northern Ireland Executive will consult separately on introducing an exemption at some point in the future. For the purposes of this consultation we have anticipated that the calculation of the obligation level for Northern Ireland will be carried out as under the current methodology for 2017/18.

### **Changing the methodology for setting the RO in England and Wales**

3.10 The methodology for setting the obligation level in respect of electricity supplied in England and Wales is set out in Part 2 (articles 7 to 13) of the Renewables Obligation Order 2015<sup>1</sup> (the RO Order 2015). This requires DECC to carry out two specified calculations (referred to as Calculation A and Calculation B) to determine the total obligation (in terms of number of ROCs) and then carry out a further calculation to determine the obligation level that applies to electricity supplied in England and Wales (in terms of ROCs per MWh supplied).

To implement the exemption we propose to:

- i) maintain the current rules for using either Calculation A or Calculation B to set the **total obligation** in respect of electricity supplied in England and Wales;
- ii) amend the estimate of total electricity supplied used to calculate the **obligation level** in England and Wales by removing the amount of electricity we estimate will be supplied to exempt EILs. This will result in a

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<sup>1</sup>Part 2 of Renewables Obligation Order 2015 - <http://www.legislation.gov.uk/uksi/2015/1947/contents/made>

proportionately higher obligation for non EI exempt electricity to offset the exemption for eligible EIs. This should ensure that the availability of ROCs will continue to match demand and therefore should not affect the value of the ROC;

- iii) Adjust the **obligation level** for England and Wales (and Scotland - assuming the Scottish Government follow a similar approach) to take account of the fact that Northern Ireland is not intending to implement the exemption at this time. This is necessary because of the way the calculation is weighted between the different parts of the UK and will result in a slightly higher obligation level for England and Wales (and Scotland) than if Northern Ireland was to adopt the exemption.

3.11 A detailed explanation of the current methodology used to set the obligation and the changes that need to be made to it to implement the exemption is at Annex A. Worked examples using data from the latest 2016/17 obligation setting exercise are at Annex B.

### **Adjusting the scope of the renewable obligation in England and Wales**

3.12 In addition to amending the calculation of the obligation level as set out above, we propose to adjust the scope of the renewables obligation in the RO Order 2015 so that the obligation level (ROCs/MWh rate) would be applied to:

- 100% of electricity provided to non-EIs
- 15% of the electricity supplied to EIs

### **Calculating the total number of ROCs required for a supplier to discharge its annual renewables obligation**

3.13 Currently under the RO Order 2015, electricity suppliers must provide Ofgem with:

- estimates of the amount of electricity supplied to customers in England and Wales during each month of the obligation period by the 1<sup>st</sup> June following that period;
- figures showing the amount of electricity it has actually supplied to customers in England and Wales during each month of an obligation period by 1<sup>st</sup> July following that obligation period.

3.14 The total number of ROCs that a supplier will need to produce to Ofgem to discharge its renewables obligation is calculated after the end of the obligation year and is based on the amount of electricity it has supplied to customers in England and Wales, (and Scotland and Northern Ireland) during that obligation period multiplied by the obligation level for that country.

3.15 This, and Ofgem's process for validating the data provided by suppliers, is set out in more detail in Ofgem's guidance for suppliers<sup>2</sup>:

3.16 In order to enable Ofgem to calculate suppliers individual obligations taking into account the exemption we propose to require suppliers to provide Ofgem with

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<sup>2</sup> Ofgem Guidance for Suppliers- Renewable s Obligation (December 2015) at : [https://www.ofgem.gov.uk/sites/default/files/docs/ro\\_supplier\\_guidance\\_december\\_2015\\_finaldocx.pdf](https://www.ofgem.gov.uk/sites/default/files/docs/ro_supplier_guidance_december_2015_finaldocx.pdf)

information on (i) total electricity supplied and (ii) EII excluded electricity supplied. This will allow Ofgem to calculate the amount of non EII excluded electricity supplied.

3.17 Ofgem would then calculate an individual supplier's obligation after the end of the obligation year by multiplying the amount of non EII excluded electricity supplied to customers in England and Wales, (and Scotland and Northern Ireland) by the obligation level for that country.

3.18 Further information on other administrative issues relevant to the exemption including how we expect Ofgem will validate information from suppliers is in Chapter 5.

3.19 If we decide to implement the exemption as proposed, we expect Ofgem will consult on changes to its guidance to suppliers.

### **Publication of obligation level**

3.20 The RO Order 2015 requires the Secretary of State to publish the obligation level for England and Wales for an obligation period by the 1<sup>st</sup> October preceding the obligation period. The obligation levels for 2016/17 were published on 30 September 2015<sup>3</sup>.

3.21 If following consultation DECC decides to proceed with implementing an exemption through changes to the RO legislation, it is unlikely that we will have the necessary state aid clearance and legislative changes in place to publish the 2017/18 obligation level in accordance with the proposed revised methodology (outlined above and in Annex B) by 1 October 2016.

3.22 We recognise that the RO can represent a significant cost for suppliers and early notification of the obligation level is important to enable them to price the cost into domestic and non-domestic retail tariffs.

3.23 To minimise the impact that this uncertainty will have on suppliers' ability to forecast costs, we will as required under current RO rules publish the obligation level for England and Wales (and with the consent of the Scottish Government, for Scotland) for 2017/18 calculated using the current rules by 1 October 2016. However alongside this, or shortly afterwards, we propose to also publish an estimate of how the obligation level for England and Wales (and Scotland) would be adjusted to account for the EII exemption, to provide an indication of what these would become if the exemption were to be implemented.

3.24 Assuming the necessary state aid approval is granted and DECC decides to proceed with the exemption, we propose to then adjust the level of the obligation for England and Wales for 2017/18 (and Scotland) to account for the EII exemption before 1 April 2017, through changes to the RO Order 2015. If the necessary state aid approval and/or parliamentary clearances have not been granted or are delayed beyond 31 March 2017 it will not be possible to implement the RO exemption for the 2017/18 obligation year. In this case the obligation level based on the current methodology would remain the obligation level for 2017/18.

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<sup>3</sup> The Renewables Obligation for 2016/17 (DECC September 2015) at : [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/464685/Renewables\\_Obligation\\_Level\\_Calculations\\_for\\_2016-17.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/464685/Renewables_Obligation_Level_Calculations_for_2016-17.pdf)

3.25 We would publish the obligation level for Northern Ireland for 2017/18 by 1 October 2016. This will be calculated in accordance with the current methodology as Northern Ireland is not implementing the exemption at this time

3.26 If DECC decides to proceed with implementing the exemption, and assuming the exemption comes into force from 1 April 2017 in Great Britain, we propose to revert to publishing the Great Britain obligation level by 1 October 2017 for the following obligation period of 2018/19, and to continue to follow this timetable going forward.

### **Implementation**

3.27 Subject to state aid and Parliamentary approval, unless indicated otherwise above, we propose to implement these changes through modifications to the RO Order 2015 and to bring these changes into force before 1 April 2017.

### **Consultation questions**

3.28 This section sets out the questions we are seeking respondents' views on in this chapter:

- 5 Is changing the methodology for calculating the obligation level and scope of the obligation level the appropriate method to apply the exemption? If not, what alternatives could be used and why?
- 6 Do you agree with our proposals in Annex A for (i) changing the methodology for calculating of the total obligation and (ii) the obligation level for individual suppliers for England and Wales? If not please explain why.
- 7 Do you agree with our proposals for changing the scope of the renewables obligation? If not please explain why.
- 8 For the setting of the RO we require a robust estimate of exempt electricity supplied to EILs (see Annex A). Do you agree that we should be taking this directly from energy suppliers to EILs? If not, please explain why and provide evidence.
- 9 Do you agree with the proposed changes to the information that suppliers are required to provide to allow Ofgem to calculate the total number of ROCs required for a supplier to discharge its annual renewables obligation after the end of the obligation year? If not please explain why.
- 10 Do you agree with our proposed changes to the arrangements for setting the obligation level for England and Wales for 2017/18 in the event that DECC decides to implement the exemption? If not please explain why and if possible suggest alternative approaches.



# Chapter 4

## The Feed-in Tariff

### **The Feed-in Tariff**

4.1 This chapter sets out and seeks views on how we propose to modify the manner in which supplier liability for FIT scheme costs is calculated to account for electricity supplied to eligible EILs.

4.2 In this chapter, 'EIL exempt electricity' means up to 85% of electricity supplied to eligible EILs.

### **Existing approach to apportioning FIT costs between suppliers**

4.3 The geographic scope of the FIT scheme is Great Britain only. It does not include Northern Ireland.

4.4 The FIT scheme requires Licenced Electricity Suppliers ("suppliers") to make payments to micro and small renewable and micro CHP generators for electricity generated and exported to the National Grid. The FIT scheme policy and tariff rates are set by the DECC and the scheme is administered by FIT Licensees and Ofgem.

4.5 The costs of making payments to generators and administering the scheme are apportioned to suppliers in accordance with market share.

4.6 The market share of a supplier is determined by calculating the amount of electricity it supplied to customers in Great Britain less the amount of electricity it sourced from renewable sources generated outside of the UK and supplied to customers in Great Britain ("overseas electricity"). This is then compared to, and expressed as a percentage of, the amount of electricity supplied by all suppliers to customers in Great Britain less the amount of overseas electricity ("overall supply").

4.7 Any overseas electricity which a supplier wishes to be taken into account when calculating their market share should be backed by appropriate certificates. As set out in the government response<sup>1</sup> to the 2015 FIT Review consultation, from 1 April 2016 a limit will be introduced on the amount of overseas electricity that can be used in this calculation.

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<sup>1</sup> Available at: <https://www.gov.uk/government/consultations/consultation-on-a-review-of-the-feed-in-tariff-scheme>

4.8 The process for apportioning FIT scheme costs to suppliers in accordance with market share is known as levelisation. All suppliers are required to make payments into a levelisation fund and Ofgem is required to undertake the levelisation process on a periodic basis.

4.9 Full details of the levelisation process are set out in the Ofgem<sup>2</sup> document: “Feed-in Tariff: Guidance for Licensed Electricity Suppliers.”

### **Proposed approach to apportioning FIT costs between suppliers**

4.10 We propose that, for levelisations for FIT periods starting from the first quarter in which the exemption is in place, in addition to the deduction for overseas electricity, Ofgem will deduct EI exempt electricity from the calculation of each supplier’s market share and the calculation of overall supply.

4.11 We propose to implement this change through modifying the relevant provisions in Part 6 of the FITs Order 2012.

### **Preventing supplier negative market share**

4.12 It would be theoretically possible for an individual supplier to demonstrate a net negative market share over a levelisation period if they claim both the overseas electricity exemption and the EI exempt electricity exemptions for the majority of their supply. This is because a supplier could claim both exemptions on the same unit of electricity.

4.13 We propose to adjust the calculations regarding the exemptions so that the total exemption a supplier may demonstrate over a levelisation period cannot exceed that supplier’s total supply over that levelisation period (i.e. no supplier can have a negative market share).

4.14 This would mean that should an individual supplier’s net market share be negative over a levelisation period then the supplier’s market share would be adjusted to zero. As a result, the market shares of the remaining suppliers would be adjusted proportionately downwards to ensure that total market share sums to 100%.

4.15 A worked example is set out in Annex B.

### **Impact on the levelisation process**

4.16 As set out above, we propose to amend the manner in which overall supply and individual suppliers’ market shares are calculated to account for EI exempt electricity. This may impact on the level of the payments that individual suppliers are required to make into the levelisation fund.

4.17 Ofgem will continue to administer the levelisation process and will be responsible for validating the information on EI exempt electricity provided to them by suppliers.

### **Impact on the mutualisation process**

4.18 Where a shortfall occurs in the levelisation fund, suppliers who pay into the periodic levelisation fund under the FIT scheme may be required to make additional payments, depending on the size of the shortfall. This process is known as mutualisation and is also set out in the Ofgem Guidance document.

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<sup>2</sup> Available, and updated from time to time, at: <https://www.ofgem.gov.uk/environmental-programmes/feed-tariff-fit-scheme>

4.19 Suppliers bear a share of any shortfall in proportion to the market share, adjusted for overseas electricity supplied. We propose to also include EIL exempt electricity in this calculation, in the same manner as for the levelisation process.

### **Impact on suppliers**

4.20 As set out above, the introduction of the exemption for EIL exempt electricity may impact on payments suppliers make into the levelisation fund and may be required to make into the mutualisation fund.

### **Consultation questions**

4.21 This section sets out the questions we are seeking respondents' views on in this chapter:

- 11 We propose to amend the manner in which FIT costs are apportioned between suppliers to take account of EIL exempt electricity. Do you agree? If not, what alternatives should be considered?
- 12 We propose to amend the FITs Order to prevent a supplier having a negative market share as a result of the dual application of the exemptions. Do you agree? If not, what alternatives should be considered?





# Chapter 5

## Administrative process

### Administration of the exemption

5.1 This chapter sets out and seeks views on administrative issues relating to implementing the exemption.

### Application process for the RO and FIT exemption

5.2 We propose to make the RO and FIT scheme exemption available to the same EIs that are eligible for the RO and FIT scheme compensation scheme and the CFD exemption. EIs will not be required to apply for certification under the RO and FIT schemes. Instead an EI certified for the purpose of the CFD exemption will be eligible for the RO and FIT exemptions.

5.3 As the eligibility criteria will be the same as the current RO and FIT compensation and CFD exemption, we propose to use existing processes to keep the administrative costs and burden to a minimum for both EIs and Government. For example, we propose to use the EI certification process<sup>1</sup> set out for the CFD exemption.

5.4 Under the CFD regulations, applications for an EI Certificate can be submitted at any point during the year. EI Certificates come into force on the day after they are issued or, where there is already a certificate in force in relation to that meter, on the 1st April in the financial year following the one in which the certificate is issued. Certificates will be valid from the date they come into force until the end of the financial year in which that date falls. This means that certificates issued on 1st October 2015 would be valid for six months. BIS will continue to undertake the assessment of eligibility against the criteria, along with any queries about the scheme and the handling of appeals.

### Monitoring

5.5 BIS will monitor EI applications and will from time to time undertake further validation or investigation. This will include, but is not limited to, the amount of the exemption claimed, the complexity of the business and random audits. The application process also requires an independent accountants' report.

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<sup>1</sup> The Electricity Supplier Obligations (Amendment and Excluded Electricity) Regulations 2015: <http://www.legislation.gov.uk/ukxi/2015/721/made>

## **Transparency requirements under State Aid approval**

5.6 BIS will publish details of eligible EILs and the aid received by each within a range of values as required by the EEAG.

### **Validation of supplier information**

5.7 Ofgem will continue to administer both the RO and the FIT scheme, and be responsible for validating the information on EIL exempt electricity provided to them by suppliers. To accomplish this, Ofgem may need access to data on EIL exempt electricity supplied by suppliers and collected by the Low Carbon Contracts Company (LCCC) for the purposes of administering the CFD exemption, otherwise a separate and duplicate data collection process may need to be established. We are considering whether this will require legislative provisions in the CFD Supplier Obligations Regulations.

### **Supplier pass-through of savings from the exemption**

5.8 We do not propose to regulate to require that suppliers pass through the exemption to eligible businesses. We expect that competitive market forces will ensure that electricity suppliers pass through the exemption to eligible businesses.

5.9 The billing arrangements between suppliers and non-domestic customers are private contracts. It is our understanding that many EILs may have contractual arrangements with their electricity suppliers whereby government policy costs are charged on their bills on a pass-through basis.

5.10 We recognise that suppliers may have already taken some decisions on cost recovery based on the existing policy framework. Hence there may be a short term under-recovery from ineligible customers that have agreed fixed tariffs where the price is locked-in for a period until a date beyond when we propose to implement the changes, and some suppliers may be disproportionately exposed to this.

5.11 However, assuming no RO price impact and complete costs pass through, then the overall impact on suppliers should be neutral, apart from the small change in administrative costs resulting from the suppliers implementing their choice. Further information is set out in the accompanying IA.

## **Consultation questions**

5.12 This section sets out the questions we are seeking respondents' views on in this chapter:

- 13 Are the monitoring and transparency arrangements appropriate? Do you agree?
- 14 We propose for Ofgem to access data used by the LCCC to administer the CFD exemption in order to validate the data on EIL exempt electricity supplied by suppliers. Do you agree? If not, what alternatives should be considered?
- 15 We do not propose to regulate to require that suppliers pass through the exemption to eligible businesses. Do you agree? If not, what alternatives should be considered?
- 16 For suppliers, to what extent do you think the proposed exemption scheme will affect one-off (e.g. familiarisation) and on-going administrative costs, visibility of changing costs and your competitiveness? Please provide evidence and a quantification of the impact.

17 What other impacts on suppliers should be considered?



## Chapter 6

# Next Steps

### **Responding to the consultation**

6.1 Please provide responses via our eConsultation portal:

<https://econsultation.decc.gov.uk/decc-policy/consultation-on-implementing-an-exemption-for-eiis>

### **Next steps**

6.2 We will aim to publish our decision as soon as possible after the consultation closes on 27 May 2016, following careful consideration of consultation responses and the evidence received.

6.3 Subject to this consultation, securing state aid approval and the relevant legislation entering into force, we intend to implement the exemption from 1 April 2017.

6.4 Subject to the present consultation, alongside the obligation levels for the Renewables Obligation that will be published before 1 October 2016 based on the current methodology, we intend to publish an estimate of the adjustment to the obligation level required to implement the obligation in England, Wales and Scotland to take account of the exemption.



# Chapter 7

## Catalogue of consultation questions

- 1 Do you agree with the main benefit to EILs of implementing the exemption through changes to the RO and FIT legislation being greater certainty as well as more accurate and faster support, compared with compensation? Please provide evidence and a quantification of the impact.
- 2 For non-exempt businesses, to what extent do you think the estimated increase in electricity bills will affect competitiveness and decisions regarding output, employment and investment? Please provide evidence and a quantification of the impact.
- 3 For householders, what will be the impact of the estimated increase in electricity bills?
- 4 We propose to make the RO and FIT scheme exemption available to the same EILs that are eligible for the RO and FIT scheme compensation scheme and the CFD exemption. Do you agree? If not, what alternatives should be considered?
- 5 Is changing the methodology for calculating the obligation level and scope of the obligation level the appropriate method to apply the exemption? If not, what alternatives could be used and why?
- 6 Do you agree with our proposals in Annex A for (i) changing the methodology for calculating of the total obligation and (ii) the obligation level for individual suppliers for England and Wales? If not please explain why.
- 7 Do you agree with our proposals for changing the scope of the renewables obligation? If not please explain why.
- 8 For the setting of the RO we require a robust estimate of exempt electricity supplied to EILs (see Annex A). Do you agree that we should be taking this directly from energy suppliers to EILs? If not, please explain why and provide evidence.
- 9 Do you agree with the proposed changes to the information that suppliers are required to provide to allow Ofgem to calculate the total number of ROCs required for a supplier to discharge its annual renewables obligation after the end of the obligation year? If not please explain why.



- 10 Do you agree with our proposed changes to the arrangements for setting the obligation level for England and Wales for 2017/18 in the event that DECC decides to implement the exemption? If not please explain why and if possible suggest alternative approaches.
- 11 We propose to amend the manner in which FIT costs are apportioned between suppliers to take account of EII exempt electricity. Do you agree? If not, what alternatives should be considered?
- 12 We propose to amend the FITs Order to prevent a supplier having a negative market share as a result of the dual application of the exemptions. Do you agree? If not, what alternatives should be considered?
- 13 Are the monitoring and transparency arrangements appropriate? Do you agree?
- 14 We propose for Ofgem to access data used by the LCCC to administer the CFD exemption in order to validate the data on EII exempt electricity supplied by suppliers. Do you agree? If not, what alternatives should be considered?
- 15 We do not propose to regulate to require that suppliers pass through the exemption to eligible businesses. Do you agree? If not, what alternatives should be considered?
- 16 For suppliers, to what extent do you think the proposed exemption scheme will affect one-off (e.g. familiarisation) and on-going administrative costs, visibility of changing costs and your competitiveness? Please provide evidence and a quantification of the impact.
- 17 What other impacts on suppliers should be considered?

## Annex A

# An explanation of detailed changes needed to RO setting methodology in order to implement the exemption

### Current methodology for setting the Renewable Obligation

The methodology for setting the obligation level in respect of electricity supplied in England and Wales is set out in Part 2 (articles 7 to 13) of the Renewables Obligation Order 2015<sup>1</sup> (The RO Order 2015). This requires DECC to carry out two specified calculations (referred to as Calculation A and Calculation B) to determine the total obligation (in terms of number of ROCs) and then carry out a further calculation to determine the obligation level that applies to electricity supplied (in terms of ROCs per megawatt hour (MWh) supplied) in England and Wales.

### Calculating the total obligation

For **Calculation A** DECC estimates the total amount of electricity (MWh) expected to be supplied to customers during an obligation period, for both Great Britain and Northern Ireland<sup>2</sup>. These estimates are then multiplied by the relevant fixed target specified in the 2015 Order: 0.154 ROCs per MWh for Great Britain and 0.063 per MWh for Northern Ireland<sup>3</sup>. These two totals are then added together to give Calculation A, the total estimated demand for ROCs in the UK. The costs of the RO are socialised across the UK. Applying the different targets to the estimates of electricity supplied will ensure that the separate obligations for GB and NI are weighted in accordance with their expected contribution to the UK renewable electricity mix. As well as potentially being used to set the obligation, calculation A is also used to calculate the obligation level under calculation B.

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<sup>1</sup>Part 2 of Renewables Obligation Order 2015 - <http://www.legislation.gov.uk/uksi/2015/1947/contents/made>

<sup>2</sup> We use DECC electricity consumption predictions from its Energy and Emission Projections to estimate electricity supply for each UK region.

<sup>3</sup> These target rates vary in line with the differing contributions that GB and NI were expected to make to the UK's overall renewable electricity target set during the early years of the RO's operation. For example for the 2015/16 obligation period and beyond it was projected that 15.4% of energy consumed would come from renewable sources in England and Wales, and Scotland, and 6.3% from Northern Ireland

For **Calculation B**, DECC estimates the total number of ROCs likely to be issued in the UK during the obligation year<sup>4</sup> and then increases that figure by 10% headroom. The resulting number is Calculation B.

Where Calculation A is equal to or greater than Calculation B, the total obligation for the obligation period will be Calculation A. Where Calculation B is greater than Calculation A, the total obligation for the obligation period will be Calculation B.

### **Calculating the obligation level (ROC/MWh) in England and Wales**

Where the total obligation is **Calculation A**, then the obligation level for England and Wales will be 0.154 ROCs/MWh for electricity supplied in England and Wales.

Where the total obligation is **Calculation B**, the obligation level for England and Wales for an obligation period is calculated as follows:

$$\text{Obligation level} = \left( \frac{\text{Calculation B} \times \text{Fixed Target}}{\text{Calculation A}} \right)$$

Where:

$$\begin{aligned} \text{Calculation B} &= \text{Estimated total ROCs generated across UK} \times 10\% \text{ headroom} \\ \text{Calculation A} &= \text{Total estimate of UK electricity supply weighted by the NI and GB targets} \end{aligned}$$

### **Proposed changes to current methodology for setting the Renewable Obligation to implement the exemption**

#### **Proposed changes to calculating the total obligation**

We do not propose to change the rules on using either Calculation A or B to set the total obligation.

#### Calculation A

We propose to amend the methodology for Calculation A as follows to remove from the estimate of total electricity supplied an estimate of the amount of EII excluded electricity:

- a) Estimate (i) total electricity supply and (ii) EII excluded electricity supply for England and Wales. We propose to base our estimate of EII excluded electricity on actual supply data from energy suppliers to eligible EIIs who have applied and have been deemed eligible for compensation (and subsequently the exemption).
- b) Subtract EII excluded electricity from total electricity supply;
- c) Multiply the output of this calculation by 0.154 NB. We expect that Scotland will also carry out steps a) and b) in parallel.

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<sup>4</sup> Calculation B is based on detailed bottom up analysis to estimate the potential number of ROCs to be generated during the obligation period by existing stations - multiplying together the MW capacity, the number of hours in the year, the banding level of that technology and predicted load factors. This is then added to the potential number of ROCs likely to be issued to new build which will be generating during the period. Estimates for new build are based on a range of sources such as REPD, Ofgem's preliminary accreditation list and through discussions with developers.

- d) Estimate the total amount of electricity likely to be supplied in Northern Ireland (NI) and multiply by 0.063 (No change is proposed to this step because NI is not implementing the exemption for 2017/18).
- e) Add both the GB (England and Wales and Scotland) and NI components together to provide a weighted overall UK demand figure. This will be Calculation A.

This will result in a lower Calculation A (total obligation level) than under the current methodology reflecting the fact that the demand for ROCs will be lower as a result of the exemption for EII eligible electricity.

Where Calculation A is used to set the total obligation in England and Wales, we propose that the obligation level will be 0.154 ROCs/MWh in line with the current fixed target set out in the RO Order 2015. This rate would apply to non-EII excluded electricity supplied to customers in England and Wales. For completeness both the fixed target and methodology for the estimated electricity supplied would not be altered.

However, in practice we do not consider that Calculation A will be used in future to set the obligation level. Calculation B has been higher than Calculation A since 2010/11 and has been used to set the total obligation for each of the last seven obligation periods. Whilst some projects will start to drop out of the RO from around 2026/27 (when some projects 20 year term of support ends) we do not expect generation to fall below the 2015/16 target levels in Calculation A<sup>5</sup> before 2027 (NB. Government has previously announced that it intends to move away from the annual obligation setting exercise to a system of fixed-price certificates by 2027).

### Calculation B

We propose that for setting the total obligation, Calculation B will continue to be calculated in accordance with the current methodology.

### **Proposed revised methodology for calculating the obligation level (ROCs/MWh rate) where total obligation is Calculation B**

#### **(i) For England and Wales**

##### First stage

We propose that Calculation A (as amended above) is then used in the first stage of the calculation obligation level for England and Wales as follows:

$$\text{Obligation Level (E\&W)} = \left( \frac{\text{Calculation B} \times 0.154 \text{ (GB fixed target)}}{\text{Calculation A}} \right)$$

Where:

*Calculation B* = Estimated total ROCs generated across UK x 10% headroom  
*Calculation A*

= Total estimate of E electricity supply to England, Wales and Scotland less EII excluded electricity plus supply, weighted by the NI and GB targets

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<sup>5</sup> The purpose of the 'fixed targets' approach under Calculation A was to create the drivers necessary to bring forward an increasing percentage of renewable electricity under the RO up to 2015/16. The calculation A targets were set at 3% for 2002/3 rising to 15.4% for England and Wales, and Scotland, and 6.3% for Northern Ireland in 2015/16 and beyond

Second stage

However, because the overall UK demand figure (Calculation A) is weighted between GB and NI, (and NI are not implementing the exemption) without further adjustment this would lead to the NI obligation level being higher than under the current methodology.

To address this we propose as a second stage to adjust the obligation level for England and Wales (we would anticipate the Scottish Government also reflecting this in the obligation level for Scotland) to take account of the difference (the “**shortfall**”) between the total number of ROCs that would need to be presented for NI under a methodology where (i) the demand for ROCs figure (Calculation A) takes into account the GB exemption and (ii) where the demand figure (Calculation A) does not take any account of the GB exemption (i.e. as under the current methodology).

This adjustment would have 2 steps; firstly to calculate the shortfall and secondly, to adjust Calculation B as used in the calculation of the obligation level, to include the shortfall but to exclude the number of ROCs that NI will need to present under the current methodology.

The calculation of the final obligation level in England and Wales can therefore be shown as:

$$\text{Obligation level (E\&W)} = \left( \frac{\text{Revised Calculation B} \times 0.154 \text{ (GB fixed target)}}{\text{Calculation A}} \right)$$

Where:

$$\begin{aligned} \text{Revised Calculation B} \\ &= \text{Total UK ROCs under Calculation B less total NI ROCS plus NI shortfall} \\ &\text{Calculation A} \\ &= \text{Total estimate of GB electricity supply less EII excluded electricity plus NI electricity} \\ &\text{supply, weighted by the NI and GB targets} \end{aligned}$$

**(i) For Northern Ireland**

We anticipate that the calculation of the obligation level for Northern Ireland will be carried out as under the current methodology:

$$\text{Obligation Level (NI)} = \left( \frac{\text{Calculation B} \times 0.063 \text{ (NI Fixed Target)}}{\text{Calculation A}} \right)$$

Where:

$$\begin{aligned} \text{Calculation B} &= \text{Estimated total ROCs generated across UKx Headroom of 10\%} \\ &\text{Calculation A} \\ &= \text{Total estimate of UK electricity supply weighted by the NI and GB targets} \end{aligned}$$

# Annex B

## Worked examples of proposed changes to the RO and FIT methodologies

### RO example

**Table B.1: Proposed changes to methodology of calculation of RO to implement the exemption, based on the RO 2016/17 Setting and the assumption (best estimate) that around 19TWh of electricity will be supplied to EILs**

**Table B.1.1: Assumptions**

	All industry	Excluding EIL exempted industry
<b>UK Electricity Sales (TWh)</b>	299	283
<b>of which</b>		
<b>Great Britain</b>	291	275
<b>Northern Ireland</b>	8	8
<b>Fixed targets</b>		
<b>GB Obligation</b>	0.154	ROC/MWh
<b>NI Obligation</b>	0.063	ROC/MWh
<b>Exempt energy supply to EILs (19TWh)</b>	19	

**Table B.1.2: Without EIL Exemption**

<b>Calculation A</b>	
Territory	Number of ROCs
GB	44,837,101
NI	494,549
Total	45,331,651

<b>Calculation B</b>	
Territory	Number of ROCs
UK	102,021,996

<b>Obligation Level for Suppliers</b>	
Territory	ROCs/MWh
NI	0.142
GB	0.347

<b>Total number of ROCs without EIL exemption</b>	
1,113,017	NI
100,908,978.35	GB
102,021,996	Total UK

**Table B.1.3: With EIL Exemption**

*Assumes that EILs are 10% of total electricity supply*

*Assumes that of total EILs, only 85% are exempt from the cost of the RO*

*Assumes that NI does not implement an exemption for EILs*

<b>Calculation A</b>	
Territory	Number of ROCs
GB	42,350,001
NI	494,549
Total	42,844,551

<b>Calculation B</b>	
Territory	Number of ROCs
UK	102,021,996

<b>Obligation Level for Suppliers</b>	
Territory	ROCs/MWh
NI	0.150
GB	0.3667

<b>Total number of ROCs with EIL exemption</b>	
1,177,627.42	NI
100,844,368.36	GB
102,021,996	Total UK

Additional burden for NI	64,610
Value	£2,749,736

**Table B.1.4: With EIL exemption and GB uplift to avoid NI cross-subsidy**

*Assumes that EILs are 10% of total electricity supply*

*Assumes that of total EILs, only 85% are exempt from the cost of the RO*

*Assumes that NI does not implement an exemption for EILs and GB has an adjusted uplift to avoid cross-subsidy by NI*

Calculation A	
Territory	Number of ROCs
GB	42,350,001
NI	494,549
Total	42,844,551

Calculation B	
Territory	Number of ROCs
UK	102,021,996
UK (revised)	100,908,978

Obligation Level for Suppliers	
Territory	ROCs/MWh
NI	0.142
GB	0.367

Total number of ROCs with EIL exemption	
1,113,017	NI
100,908,978	GB
102,021,996	Total UK
0	Difference



**Table B.2: Proposed changes to methodology of calculation of RO to implement the exemption**

<b>Outline of current methodology as set out in Renewables Obligation Order 2015</b>	<b>Calculation of obligation for Great Britain (GB) and Northern Ireland under current methodology</b>	<b>Calculation of obligation for Great Britain (GB) only under proposed revised methodology</b>
	Worked example of calculation carried out in accordance current methodology (based on actual 2016/17 obligation setting data)	Worked example of calculation carried out in accordance with proposed revised methodology to implement the exemption for Great Britain only (based on actual 2016/17 obligation setting data) Assumes Northern Ireland does not adopt the exemption and Scotland adopts the exemption and make changes to their methodology to mirror the England and Wales approach. Also assumes that 85% of electricity supplied to eligible ELLs is exempt.
<b>Calculating the total obligation</b>		
<p><b>Calculation A:</b></p> <p><b>Step 1:</b> Secretary of State (SoS) estimates total electricity supply in GB. Multiply by 0.154.</p> <p><b>Step 2:</b> SoS estimates total electricity supply to Northern Ireland. Multiply by 0.063.</p> <p><b>Step 3:</b> Add output of (1) and (2). This is calculation A.</p>	<p><b>Electricity sales in GB= 291 TWh</b>  <b>Electricity sales in Northern Ireland= 8TWh</b></p> <p>For GB 291 x 0.154 = 44.8m ROCs  For Northern Ireland 8 x 0.063 = 0.5m ROCs</p> <p><b>Total calculation A = 44.8m ROCs+0.5m ROCs = 45.3m ROCs</b></p>	<p><b>We assume that 19 TWh of electricity is supplied to eligible ELLs broken down as follows:</b></p> <ul style="list-style-type: none"> <li>• <b>Out of GB total of 291 TWh, 19TWH is supplied to eligible ELLs in GB; and</b></li> <li>• <b>Out of total 8TWh in Northern Ireland, no electricity is supplied to eligible ELLs in Northern Ireland</b></li> </ul> <p><b>Step 1 is revised so SoS estimates total supply in GB and deducts 85% of estimated supply to eligible ELLs in GB. Multiply by 0.154, the GB fixed target.</b></p>

		<p>So <math>275\text{TWh} - (85\% \text{ of } 19\text{TWh}) \times 0.154 = 42.3\text{m ROCs (rounded)}</math></p> <p><b>Step 2 - methodology remains as under current rules so that SoS estimates total supply in Northern Ireland and multiplies by 0.063 (i.e. no deduction is made for eligible EIL supplied electricity)</b></p> <p>So <math>8\text{m} \times 0.063 = 0.5\text{m ROCS}</math></p> <p><b>Step 3</b> Add total of step 1 and step 2 to give total calculation A (<math>42.3\text{m} + 0.5\text{m} = 42.8\text{m ROCs}</math>)</p>
<p><b><u>Calculation B:</u></b></p> <p><b>Step 4:</b> SoS estimates total renewable electricity supply as per Article 11 (1) of ROO 2015) electricity supply in UK.(E&amp;W, Scotland and Northern Ireland)</p> <p><b>Step 5:</b> Having regard to this number, SoS estimates how many UK ROCs likely to be issued. Calculate expected number of ROCs to be issued to stations expected to be operational in 2016/17 (capacity x number of hours in year x RO Banding x load factor).</p> <p><b>Step 6:</b> Increase UK ROC estimate by 10%. <b>This is Calculation B.</b></p>	<p><b>Based on bottom up analysis as set out in step 5 we estimate UK total ROCs will be = <math>97\text{m ROCs} \times 110\% = 102\text{m ROCS}</math></b></p>	<p><b>Steps 4 and 5 remain as per current methodology so total figure for Calculation B= <math>92.7\text{m} \times 10\% = 102\text{m ROCs}</math></b></p>



		<p><b>Because of the way the calculation is weighted between the different parts of the UK (In order to socialise RO costs across the UK) , additional steps need to be introduced to prevent Northern Ireland which is not adopting the exemption, from cross subsidising the costs of the exemption in GB.</b></p> <p><b>If we do not do this and followed the same approach for Northern Ireland, its obligation level (0.150 ROCs /MWh) would work out higher than under the current obligation setting methodology (0.142 ROCs/MWh).</b></p> <p><b>To make the necessary adjustment, we need to insert two further steps.</b></p> <p><b><u>(i) We calculate the amount of the 'cross-subsidy' for Northern Ireland.</u></b></p> <p>This is the difference between (i) Northern Ireland obligation level calculated under the exemption methodology (0.150 ROCs/MWh) multiplied by electricity supplied (8TWh) = 1.177m ROCS, and (ii) Northern Ireland obligation level calculated under the non- exemption (i.e. current) methodology (0.142 ROCs/MWh ) multiplied by electricity supplied (8TWh) = 1.113m. This works out at around (~64,600</p>
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		<p>ROCs) ;</p> <p>Then :</p> <p><b><u>(ii) insert a second version of Calculation B, which is the same as under the current methodology but adds the cross subsidy and deducts the total Northern Ireland I ROCs.</u></b></p> <p>So (102m) less cross subsidy (64,600) less Northern Ireland total obligation (1.177m, which is <math>0.150 \times 8\text{TWh}</math>).</p> <p><b>This gives us around 100.9m ROCs.</b></p> <p><b>Using the above, we repeat the same calculations for the GB obligation level and continue with step 8 and 9 but base this on the 100.9m ROCs,</b></p> <p>So <math>100.9\text{m} / 42.8\text{m}</math> (GB Calculation A) <math>\times 0.154</math> (fixed target). <b>This gives us a GB obligation level of 0.367 (or more precisely 0.3669, which is marginally higher than the 0.33667 ROCs/ / MWh if Northern Ireland were to adopt the exemption.</b></p> <p><b>The Northern Ireland obligation level would be 0.142 ROCS (as under the current methodology).</b></p>
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<p><b>Calculating individual supplier compliance with obligation level at end of year as per current Ofgem process (set out in guidance )</b></p>		
<p><b>For GB</b></p> <p>Ofgem multiply the total amount of electricity supplied by company in GB in MWh by supplier obligation MWh rate in GB to get number of ROCs that need to be redeemed / payments made into buyout fund</p> <p><b>For Northern Ireland</b></p> <p>Ofgem multiply the total amount of electricity supplied by company in NI by supplier obligation MWh rate in NI to get number of ROCs that need to be redeemed / payments made into buy out fund .</p>	<p>If a company supplies 220 MWh in GB the number of ROCs needed to comply would be :</p> <p><math>220 \text{ MWh} \times 0.348 \text{ ROCs/MWh} = 76.56 \text{ ROCs.}</math></p> <p>If a company supplies 220 MWh in NI the number of ROCs needed to comply would be :</p> <p><math>220\text{MWh} \times 0.142 \text{ ROCs/MWh} = 31.24\text{ROCS}</math></p> <p>It does not matter whether the customer is an EIL or not, the same rate applies.</p>	<p><b>Where an exemption is in place in GB the ROCs/MWh rate (0.367) would be applied to :</b></p> <ul style="list-style-type: none"> <li>• 100% of electricity provided to non-eligible large energy user</li> <li>• 15% of the electricity supplied to eligible EIL customers</li> </ul> <p><b>For Northern Ireland the ROCs/MWh rate (0.142) would be applied to 100% of the electricity supplied.</b></p> <p><b>It does not matter whether the customer is an EIL or not, the same rate applies.</b></p>

## FIT example

**Table B.3: The table below sets out the market shares for a set of hypothetical suppliers, following adjustments for both the overseas renewable electricity and EIL exemptions.**

Supplier	Total supplied (GWh)	Overseas electricity supplied (subject to annual cap) (GWh)	EIL exempt electricity supplied ( $\leq 85\%$ ) (GWh)	Adjusted total supplied (GWh)	Market share (with no double counting correction)	Market share (with double counting cap in place)	Final market share (adjusted to total 100%)
A	20	10	0	10	4.13%	4.13%	3.73%
B	50	0	25	25	10.33%	10.33%	9.33%
C	60	40	45	-25	-10.33%	0.00%	0.00%
D	11	7	5	-1	-0.41%	0.00%	0.00%
E	4	0	1	3	1.24%	1.24%	1.12%
F	100	33	33	34	14.05%	14.05%	12.69%
G	54	32	5	17	7.02%	7.02%	6.34%
H	7	1	0	6	2.48%	2.48%	2.24%
I	200	25	2	173	71.49%	71.49%	64.55%
<i>Total</i>	<i>506</i>	<i>148</i>	<i>116</i>	<i>242</i>	<i>100%</i>	<i>110.74%</i>	<i>100%</i>

### Current calculation of market share

Supplier market share = {electricity supplied (less adjustments for overseas exemptions)} / {total GB electricity (less adjustments for overseas exemptions)}

### Proposed calculation of market share

Supplier market share = {electricity supplied (less adjustments for overseas and EIL exemptions)<sup>1</sup>} / {total GB electricity (less adjustments for overseas and EIL exemptions)}

<sup>1</sup> where the sum of overseas and EIL exemptions > 100% electricity supplied then the total exemption is counted as 100%