Renewables Obligation (RO)

www.ofgem.gov.uk/ro

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Guidance for generators that receive support under the Renewables Obligation (RO) scheme

Overview

This document is for generators accredited under the Renewables Obligation (RO) schemes in England, Scotland, Wales and Northern Ireland. It provides an overview of the support levels and the types of generating technologies that were eligible for the scheme. It also sets out the information we require from generators to issue Renewables Obligation Certificates (ROCs) and explains how and when we issue ROCs. It is not intended to be a definitive legal guide to the RO and, as a working document, it may be updated from time to time. On 1 April 2017 the RO closed to new capacity. Separate guidance on the closures is available at www.ofgem.gov.uk/ro-closure. Generator guidance for the Feed-in Tariffs and the ROO-FIT schemes is also available on <u>our website</u>

Associated Documents

Readers should be aware of the following documents which support this publication:

Legislation

All legislation can be found at <u>www.legislation.gov.uk</u>:

- The Renewables Obligation Order 2015
- The Renewables Obligation (Scotland) Order 2009
- The Renewables Obligation Order (Northern Ireland) 2009
- Their respective amendment Orders for 2010, 2011, 2013, 2014, 2015, 2016, 2017, 2018 and 2019, 2020, 2021
- The RO Closure Orders

Guidance

All documents are available at <u>www.ofgem.gov.uk/ro</u>.

- Renewables Obligation: Banked ROCs FAQ
- Renewables Obligation: Essential guide to commissioning
- Renewables Obligation: Output data FAQ
- Renewables Obligation: Fuel Measurement and Sampling (FMS)
- Renewables Obligation: Sustainability Criteria
- Renewables Obligation: Sustainability Reporting
- Renewables Obligation: Biodiesel and Fossil Derived Bioliquids Guidance
- Northern Ireland Renewables Obligation: Closure of the scheme
- Renewables Obligation: Closure of the scheme to large-scale solar PV
- Renewables Obligation: Closure of the scheme to small-scale solar PV
- Renewables Obligation: Closure of the scheme to onshore wind in England, Scotland and Wales

- Northern Ireland Renewables Obligation: Closure of the scheme to large-scale onshore wind
- Northern Ireland Renewables Obligation: Closure of the scheme to small-scale onshore wind

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1. Introduction

Definition of the RO

- 1.1. The Renewables Obligation (RO), the Renewables Obligation (Scotland) (RO(S)) and the Northern Ireland Renewables Obligation (NIRO) are designed to incentivise renewable electricity generation in the UK. The Renewables Obligation Orders (the Renewables Obligation Order 2015 as amended (ROO 2015), the Renewables Obligation (Scotland) Order 2009 as amended (RO(S) 2009) and the Renewables Obligation Order (Northern Ireland) 2009 as amended (NIRO Order 2009) the legislation underpinning the RO, RO(S) and NIRO) place an annual obligation on licensed electricity suppliers in England, Wales, Scotland and Northern Ireland to present a specified number of Renewables Obligation Certificates (ROCs) per megawatt hour of electricity supplied to their customers¹ during each obligation period.
- 1.2. The Department for Business, Energy, and Industrial Strategy (BEIS), the Scottish Government and the Department for the Economy in Northern Ireland (DfE) are responsible for developing the policy underpinning the RO schemes, including setting support levels, establishing the legislative framework and making amendments to the legislation.
- 1.3. On 1 April 2017, the RO closed to new capacity, meaning both new generating stations and additional capacity added to existing accredited stations are no longer able to apply for the scheme. Grace periods were available in certain circumstances for generators who could demonstrate eligibility until 31 March 2019. Further information can be found at www.ofgem.gov.uk/ro-closure.

Ofgem's Role

1.4. Ofgem administers the schemes and day-to-day functions on behalf of the Gas and Electricity Markets Authority (the Authority). We do this according to the legislation (the RO Order in England and Wales and the RO(S) Order in Scotland. Ofgem also administers the Northern Ireland Renewables Obligation (NIRO) in accordance with the NIRO Order on behalf of the Northern Ireland Utility Regulator (UR) under an Agency Services

¹ The electricity in this case refers to

a) Scotland: It relates to electricity supplied to customers or premises in a Renewable Energy Zone (Article 5(6B) of the RO(S) (as amended)).

England and Wales: It relates to 'relevant electricity', which since April 2019 is any electricity supplied to customers in England and Wales other than EII excluded electricity (Article 7(5A)of the ROO (as amended)).

c) Northern Ireland: This refers to electricity supplied to customers (Article 5(2) of the NIRO (as amended)).

Agreement.² Under this agreement, the UR is required to carry out the functions listed above in respect of the NIRO. However, the UR continues to retain responsibility under the legislation for administering the NIRO.

- 1.5. The Orders explain what our functions are; they include:
 - issuing ROCs and Scottish Renewables Obligation Certificates (SROCs),
 - establishing and maintaining a register of ROCs and SROCs,
 - revoking ROCs and SROCs where necessary,
 - monitoring compliance with the requirements of the Orders,
 - annually calculating the buy-out price resulting from the adjustments made to reflect changes in the retail price index,
 - receiving buy-out payments and redistributing the buy-out fund,³
 - receiving late payments and redistributing the late payment fund,
 - recovering the administration costs of the RO from the buy-out fund, and
 - publishing an annual report on the operation of and compliance with the requirements of the Orders.
- 1.6. We carry out our functions efficiently and effectively, according to the provisions of the Orders. We cannot act beyond the scope of the powers laid down in the Orders. For example, we have no remit over the operation or regulation of the ROC market itself.

Scheme eligibility

1.7. To receive support under the RO a generator must have been accredited by Ofgem. Generating stations that do not meet the eligibility criteria cannot be supported under the RO. The eligibility requirements for accreditation, including explanations on each of these eligibility requirements, can be found in more detail in Appendix 3.

² Authorised under Section 121, Energy Act 2004.

³ Where suppliers do not have enough ROCs to meet their entire obligation, they must pay an equivalent amount into a buy-out fund to cover the shortfall. The proceeds of the buy-out fund are paid back prorata to those suppliers who presented ROCs.

How the scheme works

- 1.8. Before the scheme closure, generators could submit an application for accreditation for a renewable generating station.
- 1.9. Once the generating station had been accredited, generators (or their agents) are issued ROCs based on the net renewable electricity that is generated by the station. ROCs can then be sold directly or indirectly to suppliers who will redeem them against their Renewables Obligation. Ofgem are not involved in the private agreements of ROC trades but these transactions can be completed via our online system called the Renewable Electricity Register (RER).
- 1.10. The number of ROCs issued per megawatt hour (MWh) is determined by the technology/fuel used by the station, its size, its location and when it was accredited under the RO. To be accredited under the Orders, generating stations must meet the statutory criteria, for example they must be commissioned and have submitted an application. Once accredited, further criteria must be met every month if ROCs are to be issued.
- 1.11. If accreditation has been granted and ROCs have subsequently been issued, the onus is on the generator to transfer the certificates to a suitable party. Although we have no responsibility over the transfer of ROCs once they have been issued, we can provide guidance and assistance when needed, such as helping to use the IT system, and advising on practicalities of transferring/selling ROCs. We can however revoke or withhold ROCs if we think they should not have been issued.

The closure of the RO Schemes

- 1.12. The RO Schemes closed to new capacity on 31 March 2017, as set out in the RO Closure Order 2014. Support for capacity accredited under the RO at that date is retained at existing support levels⁴ (a policy called grandfathering of support) and receives its full lifetime of support. Some grace periods were available to those who missed the closure date in certain circumstances. As ROCs cannot be issued on generation after March 2037 capacity with an effective date of accreditation after 31 March 2017 will not receive the full 20 years of support.
- 1.13. Between 31 March 2015 and 31 March 2017, the RO closed early to solar PV in England, Scotland and Wales and onshore wind in all countries. A summary of the early closures

⁴ There are some exceptions to the grandfathering policy. Please refer to the section on Grandfathering in Appendix 4.

and grace periods can be found in our Renewables Obligation: Solar PV and Wind Grace Periods Summary⁵.

- 1.14. The government introduced the Contracts for Difference (CfD) scheme in 2014. In the transition period, when both schemes were open, generators were able to choose between the schemes. Ofgem continues to administer the RO, and National Grid (and the Low Carbon Contracts Company) administers the CfD scheme. The choice of scheme applied to stations in England, Scotland and Wales only, as the CfD scheme was not introduced in Northern Ireland
- 1.15. For further information on the transition period and the interaction of the RO and CfDs please refer to Appendix 5.

This document

- 1.16. This document has been specifically created for the RO scheme. It is for guidance only and is not intended to be a legal guide. Generators should seek their own legal and technical advice before making changes to the setup of an RO accredited generating station.
- 1.17. This guidance does not anticipate every scenario which may arise. If a scenario arises which is not addressed in this guidance, we will adopt an approach consistent with the relevant legislation. Any guidance in addition to this document will be published on our website: www.ofgem.gov.uk/ro.
- 1.18. If parties other than registered account holders are involved in the RO, for example data collectors providing monthly information, the operator of the generating station is responsible for ensuring this guidance is distributed accordingly.

Terms used in this document

1.19. Unless apparent from the context, where "RO" is used, it denotes the Renewables Obligation (RO) Order 2015 as amended ("ROO 2015"), the Renewables Obligation (Scotland) (ROS) Order as amended, ("RO(S) 2009") and the Northern Ireland Renewables Obligation (NIRO) Order as amended, ("NIRO 2009"). The separate Orders are individually referenced where necessary. Where "ROC" is used it denotes certificates issued under all three Orders - Renewables Obligation Certificates (ROCs), Scottish Renewables Obligation Certificates (SROCs) and Northern Ireland Renewables Obligation Certificates (NIROCs). "The Orders" refers to any and all of these three legislative Orders.

⁵ <u>https://www.ofgem.gov.uk/publications-and-updates/renewables-obligation-solar-pv-and-wind-grace-periods-summary</u>

- 1.20. "Ofgem" "us" "our" and "we" are used interchangeably when referring to the exercise of the Authority's powers and functions under the Orders.
- 1.21. "The Act" refers to the Electricity Act 1989 (as amended). This is the primary legislation that the RO and RO(S) Orders came from. Changes made to the Act via the Energy Act 2008 have given the government powers to change the ROC support structure. The Department of Enterprise, Trade and Investment (DETI)⁶ introduced the NIRO scheme in exercise of the powers conferred by the Energy (Northern Ireland) Order 2003.⁷ The terms "generators", "operators", "you" and "your" are used interchangeably throughout the document
- 1.22. "The Register" or "the RER" refers to the online portal, the Renewable Electricity Register" we use for administration of the RO scheme.

Contact us

- 1.23. Please email any queries about our functions, or a station that is accredited, or pending accreditation under the scheme to: Renewable.Enquiry@ofgem.gov.uk. Please state the nature of your query and the station name in the subject line of the email.
- 1.24. Written queries should be sent to: Renewable Electricity Administration, Ofgem, Commonwealth House, 32 Albion St, Glasgow. For telephone enquiries, the team can be contacted on 020 7901 7310 during office hours.
- 1.25. Please note that we can only provide guidance on the legislation currently in place. Any queries regarding future changes to the Orders or wider energy policy should be directed to BEIS, the Scottish Government or DfE as appropriate. Contact details can be found at http://www.gov.uk/beis, www.scotland.gov.uk and www.economy-ni.gov.uk respectively.

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⁶ Now Department for the Economy (DfE).

⁷ Articles 52 to 55F and 66(3) of The Energy (Northern Ireland) Order 2003 gave DETI the powers to adopt similar legislation

2. Accreditation under the RO

Chapter summary

Here we explain what accreditation entails. There is also an explanation of how an accreditation is amended, how the withdrawal of accreditation is dealt with, the process of adding additional capacity, as well as detailing procedure when a change of operator occurs. Please note that the RO scheme is now closed to both new accreditation applications as well as applications to add capacity to already accredited stations.

Accreditation types

2.1 There were two types of accreditation available under the RO scheme.

1. Preliminary accreditation

This was available to prospective generators who were seeking support under the RO scheme that had the necessary planning permission or consent in place and weremore than two months away from being commissioned. On receiving preliminary accreditation, the generator must have commissioned their station and converted their application to a "full" accreditation application ahead of the scheme closure or grace period dates in order to be issued ROCs.

2. Full accreditation

This was where the generator applied directly to Ofgem immediately ahead or after commissioning of their generating station. The date in which a generating station was eligible to receive support is the latter of the commissioned date and the application date. This is known as the effective date of accreditation and is confirmed by Ofgem upon granting accreditation. A generating station could not receive support prior to the effective date of accreditation.

Amended applications

2.2 Amended applications are for accredited generating stations where the generating station or fuel used by the generating station has been altered or updated in any way. For example, if new meters have been installed or additional capacity has been added. All generators on the RO scheme are required to notify Ofgem as to any changes made to the generating station, the way in which ROCs are to be claimed or the fuel used. Any such changes must be notified to Ofgem within two weeks of the alteration occurring. Further information on amended applications is provided later in this chapter; following the closure of the RO, no new accreditation applications can be submitted.

- 2.3 To make changes to an accreditation application, please log into your RER account. The accreditation application can be submitted to us for re-appraisal once all amendments have been made.
- 2.4 We encourage you to let us know in advance of making any amendments to your accreditation so we can agree the best time for you to update the application. This is because ROCs will not be issued while an amended application is in review with us. Once we have reviewed and approved the amendments, we will confirm this in writing to the operator of the station.
- 2.5 We appreciate that while we assess application amendments, the refusal to issue ROCs will likely interfere with an operator's revenue stream. We will look to process amendments as soon as we are able and encourage you to provide as much information as you can about the changes that have been made. Once the amended application has been approved, we will review generation data that has been submitted to us during the review period and issue ROCs on any eligible claims. The operator should continue to submit their data on ROC claims in line with the legislative deadlines while the review is ongoing. Any suspended cases will be reviewed by the Data team such that when the amendment is approved the ROCs are ready to be released in line with the next ROC issuance date.
- 2.6 We need to review and approve any changes and amendments to the accredited generating station for several reasons. This includes, but is not limited to, maintaining the RER.
- 2.7 Where a site is selected for a site visit our auditors review the generating station in line with the information provided in the application form. We also need to ensure the station continues to be eligible under the scheme such that ROCs can be issued to the station.
- 2.8 When reviewing accreditation amendments, our main focus will be to ensure that the station continues to meet all relevant eligibility requirements and that the information provided is up to date. The eligibility requirements for accreditation, including explanations on each of these eligibility requirements, can be found in more detail in Appendix 3. As a part of our checks, we will verify whether the electricity generated is still used or supplied in such a way that it remains eligible for ROC issue.
- 2.9 Material changes include any changes that mean the generating station as planned or built is no longer eligible under the scheme ie, any previous accreditation it might have had is invalidated. Where we consider that a material change has taken place since accreditation was granted, we may consider taking compliance action which can include withdrawing, amending, or attaching conditions to that accreditation. The RO legislation does not provide for a process whereby you can obtain prior comfort or agreement from

us that the changes you intend to make will not impact your station's eligibility. Despite this, we would encourage you to discuss in advance with us any planned changes to your generating station and seek independent legal and technical advice.

- 2.10 Producing a definitive list of what will, and will not, constitute a material change is not practical. Examples of a non-material change would be replacing a broken meter with a new one that meets scheme requirements or changing from a ROC claim based on on-site use to one that is based on export only. Examples of a material change would be a change to the power purchase arrangements such that the electricity generated was no longer supplied to customers in the UK, a change to a station's installed capacity such that it exceeded certain prescribed thresholds, the transfer of a generating station from the country it received accreditation in to another one, or a change to a fuel used in generating electricity to one not classified as renewable under the Orders.
- 2.11 It is important to note that, if a material change is made to a generating station, scope may exist to reverse the change such that accreditation can be maintained. It is likely that during the period of time when the material change was in effect, the station would not be eligible for ROCs, but ROC issue could generally recommence once changes are reversed.
- 2.12 Relocation and repowering are other examples of modifications made to a generating station that requires submission of an amended application. Further details on both of these situations are described below.

Relocation

- 2.13 This is moving an accredited generating station used to generate electricity which can be classified as renewable energy, from one particular place to another.
- 2.14 For a generating station which has been relocated to remain eligible for ROCs, the generator will have to show that any change it undergoes is not a material change. A material change includes any change that means the generating station as planned or built is no longer eligible under the scheme. Producing a definitive list of what will, and will not, constitute a material change is not practical. Examples of material and non-material change can be found in Paragraph 2.9.
- 2.15 Any application amendment submitted on behalf of a relocated station will be assessed to ensure that the information provided by the generator in the application still meets all the RO scheme's eligibility requirements. These requirements include but are not limited to the administrative region served by the scheme the generating station was originally accredited under, relevant eligibility criteria, and the definition of a generating station. Further details on these requirements are given below.

- 2.16 The territorial extent of each RO scheme is clearly set out in the relevant legislation which established the different schemes. Following the closure of the RO scheme, any station which is relocated to another country within the UK will no longer be eligible to seek accreditation for the relocated capacity under another RO scheme eg, a generating station accredited under the RO in England and Wales could not relocate to Scotland and be accredited under the RO(S) scheme.
- 2.17 Accredited generating stations will have to continue to meet all relevant eligibility requirements for the whole duration of claiming support under the RO scheme. Consequently, an operator of a relocated generation station will be required to follow the same process as with any other application amendment and provide Ofgem with satisfactory evidence that their station still meets the necessary criteria if they wish to remain accredited under the RO scheme. Details on the evidence will need to be provided to show eligibility can be found in Table A3.1 of Appendix 3.
- 2.18 Another aspect that we will consider during our assessment is what constitutes a generating station. Operators considering relocation of their accredited stations might want to refer to Table A3.2 in Appendix 3 which contains further information regarding the definition of a generating station. Any generator will have to demonstrate to Ofgem that the changes to the generating equipment were non-material, and as a result did not affect its original accreditation under the RO.

Repowering

2.19 Repowering, in the context of the RO, can be defined as the process of replacing older components or equipment in generating stations (which are accredited to receive ROCs) with newer ones that either have a greater capacity or more efficiency, which results in a net increase of power generated. This includes the full or partial replacement of installations or operation systems and equipment for the purpose of increasing the efficiency or capacity of the generating station. The operator is required to notify Ofgem as to any changes made to the generating station, including on repowering. Any such changes must be notified to us within two weeks of the alteration occurring. Any application amendment submitted on behalf of a station that has repowered will be assessed to ensure that the information provided by the generator in the application still meets the RO scheme's eligibility requirements.

Permitted ways

2.20 The Orders state that ROCs can only be issued on electricity supplied to customers in GB and NI, or electricity used in a permitted way. This can include electricity exported to the 'grid' and supplied by a licensed supplier to customers in GB and NI, electricity used on

site by the operator of the generating station and electricity supplied to a customer via a private wire.⁸

Own use of electricity (eligible on-site use)

- 2.21 Electricity (other than input electricity) that is generated and used on-site by the operator of the generating station may be eligible for ROCs. Input electricity under the RO is electricity used for a purpose directly related to the operation of the generating station.
- 2.22 To claim ROCs on on-site use, the operator of the generating station needs to sign a 'permitted ways' declaration and submit this to us each year. This is completed through a 'superuser' account.

Export to a customer via a private wire

- 2.23 Generators may also be able to claim ROCs if renewable electricity is supplied to a customer through a licence exempt distribution network or a 'private wire' arrangement. To do so, the operator of the generating station needs to sign a 'permitted ways' declaration and submit this to us each year. We will also look to understand the nature of the private wire arrangement, the power purchase agreement that is in place, the nature of the premises to which the electricity is supplied and whether the generator is exempt from holding an electricity supply licence.
- 2.24 It is important to note that, as described in Article 17 of the Orders, where a generating station has a DNC of more than 10MW and the electricity has been supplied via part of the national transmission network or distribution network, the electricity will not be eligible for ROCs under 'permitted ways'.
- 2.25 If the DNC of the station is less than or equal to 10MW, and before the electricity is supplied to the customer, if it is transmitted or distributed via part of the licensed network, we will need contractual evidence that shows that this supply was via a licensed supplier before we could issue ROCs.
- 2.26 If it is not clear who is consuming the electricity, we will consider who is bearing its cost. This is to determine whether the electricity is to be regarded as own use electricity or export to a customer through a licence-exempt distribution network

⁸ <u>https://www.legislation.gov.uk/ukpga/1989/29/section/32B</u>

2.27 If the way in which a generator is claiming ROCs under permitted ways change then they need to update the details on their application and this needs to be assessed before Ofgem can issue ROCs.

Adding capacity after scheme closure

2.28 After the closure of the RO to new generating capacity (see Figure 1), there are a number of scenarios in which generators may choose to add new capacity which is not eligible for ROCs. These scenarios, and the processes to administer this new capacity, are different for England, Scotland and Wales, and Northern Ireland. A summary can be found in Figure 1, with further information below

Figure 1: Summary of scenarios for adding capacity to an RO station after the closure of the scheme



2.29 We recommend that a generator intending to increase their Total Installed Capacity (TIC) after the closure of the scheme should contact us beforehand, so that we can help time the changes to the application to minimise the impact on their ROC issue. For more information see 'amended applications'.

England, Scotland and Wales

- 2.30 In England, Scotland and Wales new capacity is "excluded capacity."9
- 2.31 Generators in these countries may face the following scenarios:
 - Adding excluded capacity for which you have, or would like to apply for, a Contract for Difference (CfD), including dual scheme facilities (DSF) and RO-CfD phased projects: see Appendix 5 and 'separately metered output' below,
 - Adding excluded capacity for which you will not seek support under any other existing scheme and can be separately metered: the output from the excluded capacity¹⁰ must be separately metered, for further details see 'separately metered output' below,
 - Adding excluded capacity, such that the TIC of the generating station will increase, but separate metering is not possible: we will pro-rate output for the whole generating station across the TIC of the RO capacity and the excluded capacity, for further details see 'pro-rated output' below. Note that this is only permitted where separate metering is not possible, for example when an engine or turbine is replaced and the new equipment has a greater TIC.

Separately metered output (England, Scotland and Wales only)

- 2.32 Once the new capacity is commissioned, in line with your agreed Information Declaration, you must amend your application on the RER within two weeks. This will include updating the total installed capacity (TIC), declared net capacity (DNC) in the Technical Information sub-section of the Station section found under the capacity table heading. In addition, you must submit a revised single line diagram (SLD) to declare the excluded capacity and metering arrangements.
- 2.33 The legislation requires that output electricity from excluded capacity in England, Scotland and Wales is metered separately from the output from RO capacity. This can be achieved either by:
 - *Metering the RO capacity with 'meter A', and the excluded capacity with 'meter B'*. The generator submits the RO capacity output from 'meter A' and the excluded capacity output from 'meter B'.

⁹ As defined in Article 45(4) of the ROO 2015 (as amended) and Article 2(1) of the RO(S) Order 2009 (as amended). ¹⁰ PO capacity is defined in Article 2(1) of the POO 2015 (as amended) and PO(S) Order 2009 (as

 $^{^{10}}$ RO capacity is defined in Article 2(1) of the ROO 2015 (as amended) and RO(S) Order 2009 (as amended).

- Metering the output of the whole generating station with 'meter X', and the excluded capacity with 'meter Y'. The generator deducts the 'meter Y' output from the 'meter X' output to determine the RO output and submits the result of the calculation as RO output. They then submit the 'meter Y' output as the excluded capacity output.
- 2.34 The generator should continue to follow the standard processes outlined in Chapter 4. However, if the generator is unable to access the meter measuring the excluded capacity or the meter is broken, they should report 0 against the excluded capacity output. This would mean that Renewable Energy Guarantees of Origin (REGOs) in respect of generation from the excluded/unsupported capacity will not be issued. Therefore, if the operator of the generating station would like to claim REGOs they would either need to submit a separate REGO only accreditation or an estimate would need to be agreed with Ofgem. To do this, please contact Ofgem at <u>renewable.outputdata@ofgem.gov.uk</u>. Fuel stations that add excluded capacity will likely have to re-agree their Fuel Measurement & Sampling (FMS) procedures with us. Please see the FMS guidance for more information.
- 2.35 In some circumstances, it will not be possible to separately meter the excluded capacity output, eg, where with a 200-kW engine is replaced with a 300-kW engine. In such instances, output will be pro-rated across the station.
- 2.36 Generators should separately meter their input electricity where this is possible. Prorating should only be used where it is not possible to separately meter input electricity.¹¹ The RER will allow you to enter separately metered input electricity if required.

Northern Ireland

- 2.37 Unlike the ROO and the RO(S), NI legislation does not define 'NIRO capacity' or 'excluded capacity'. For clarity and consistency, we will refer to all capacity that is eligible for NIROCs as 'NIRO capacity', and all capacity that is not eligible for NIROCs as 'unsupported capacity'.
- 2.38 If generators in Northern Ireland choose to add unsupported capacity, we are required to pro-rate output of the whole generating station across the TIC of the NIRO capacity and the unsupported capacity. Pro-rating is used where the capacities are metered separately and where metering is shared. For further details, see 'pro-rated output' below.

¹¹ See Article 26 of the ROO 2015 (as amended) and Article 23A of the RO(S) 2009 (as amended).

Pro-rated output (all regions)

2.39 The number of ROCs issued will be calculated by pro-rating input and output electricity across the TIC of the RO/NIRO capacity and the excluded/unsupported capacity. See Figure 2 for an example.

Figure 2: Example of pro-rating output for a station formed of RO and unsupported capacity



- 2.40 Once the new capacity is commissioned, you must amend your application on the RER to update the description of the station and the SLD (under the Station Layout section of the application) to declare the excluded/unsupported capacity and any changes to the metering arrangements. You must also update the TIC, DNC within the capacity table in the application to reflect the addition of the excluded capacity.
- 2.41 When submitting your monthly output data, you should submit a figure for the total output of the station and the RER will pro-rate across the RO and unsupported capacities.

Note on TIC and DNC

2.42 Adding excluded/unsupported capacity increases the TIC and DNC of the generating station, but not the RO/ NIRO capacity. In some places the legislation references specific TICs and/or DNCs for certain technologies and ROC bands, which you should familiarise yourself with before making changes to your station. We have outlined some scenarios here, but it remains the generator's responsibility to seek independent legal and technical advice.

'Large hydro'

2.43 A 'large hydro generating station' means a hydro generating station which has, or has had, at any time since 1 April 2002, a DNC of greater than 20MW.¹²

'Large hydro' in England and Wales

2.44 Any generating station meeting this definition is not eligible for ROCs. Should a hydro generating station, first commissioned on or before 1 April 2002, add excluded capacity that takes their DNC over 20MW, ROCs would no longer be issued for any generation by the station.

`Large hydro' in Scotland

- 2.45 If a hydro generating station, first commissioned on or before 1 April 2002, added excluded capacity prior to 20 November 2018 that took their DNC over 20MW, ROCs would no longer be issued for any generation by the station.
- 2.46 If a hydro generating station in Scotland adds excluded capacity which forms part of the station after 20 November 2018 that takes their DNC over 20MW, the station will still be eligible for ROCs on the RO accredited capacity¹³ following standard excluded capacity procedures outlined in Paragraph 3.71.

Solid or gaseous biomass

2.47 ROCs cannot be issued on any electricity generated by a generating station from solid or gaseous biomass¹⁴ unless the generating station has a TIC of <1MW or the biomass meets the greenhouse gas criteria and the land criteria.¹⁵

¹² Article 54(2) of the ROO 2015 (as amended), Article 2(1) of the RO(S) 2009 (as amended).

¹³ Article 2(1) of the RO(S) 2009 (as amended).

¹⁴ Biomass other than animal excreta, bioliquid, landfill gas, sewage gas or waste.

¹⁵ Article 63(2b) of the ROO 2015 (as amended), Article 22ZA(2b) of the RO(S) 2009 (as amended), Article 21ZA(2b) of the NIRO 2009 (as amended).

- 2.48 Where a RO generating station using solid biomass and/or biogas fuels adds excluded/unsupported capacity such that the TIC ≥1MW, it will be required to report against the Land and Greenhouse Gas criteria for each consignment of biomass used, in order to receive ROCs on any generation.
- 2.49 For fuelled generating stations, there are further provisions under the Orders where eligibility for ROCs is linked to the station's capacity, not only the RO capacity, and could be affected by the combination of fuels used at the generating station. We would therefore recommend that participants always seek their own technical and legal advice before adding excluded/unsupported capacity.

ROC banding

- 2.50 In most cases where the capacity of a station is relevant, it is the DNC of the whole generating station that is used to calculate ROC banding, not just the RO capacity. In Northern Ireland, this is always the case. For example, adding additional capacity for an onshore wind generating station in Northern Ireland can result in it exceeding the 250kW DNC NIROC banding which would therefore move the station to a lower NIROC banding.
- 2.51 Generators should be aware that adding excluded/unsupported capacity may reduce the ROC rate they receive on their RO generation. For more information, please refer to the ROC banding tables in Appendix 4.

Monitoring Compliance of accredited generating stations

- 2.52 There are a number of compliance actions Ofgem can take against a generating station accredited under the scheme. This can include amending or attaching conditions of accreditation, withdrawing an accreditation, revoking or refusing to issue ROCs to a station.
- **2.53** When an application is withdrawn the station is no longer eligible to receive ROCs.

Reasons why we could withdraw accreditation

- 2.54 We may withdraw full accreditation if¹⁶:
 - We think there has been a material change¹⁷ in circumstances since the accreditation was granted.

 $^{^{16}}$ See Article 90(4) of the ROO 2015 (as amended), Article 58(8) of the RO(S) 2009 (as amended), and Article 50(5) of the NIRO 2009 (as amended).

¹⁷ See 2.9 for information on what constitutes a material change.

- There is any condition of accreditation that has not been complied with.
- We have reason to believe that the information that the decision to grant the accreditation was based on was incorrect in a way that makes the station ineligible.
- There has been a change in the applicable legislation since the preliminary accreditation was granted such that, had the application for preliminary accreditation been made after the change, it would not have been granted.
- There has been a change in applicable legislation since the accreditation was granted such that, in our opinion, the station to which the accreditation relates is no longer likely to generate electricity that ROCs may be issued on.
- 2.55 When a generating station undergoes a material change, information pertinent to this change should be shared with us by the operator of the generating station. We will then use this information to help decide whether the accreditation of the generating station should be withdrawn or not, as this is a decision which is always made by Ofgem. The operator should email us at <u>renewable.accreditations@ofgem.gov.uk</u> clearly stating the name of the generating station in the email title and including the information that we require from them. This information includes:
 - The operator should explain exactly what changes were made to the station. This
 includes what equipment/infrastructure was removed and what remains in place.
 We will establish whether it still constitutes a generating station using this
 information. Appendix 3 sets out what we would define as a generating station.
 - Suitable third-party evidence such as decommissioning certificates, photographic evidence and other similar documents.
 - A timeline of relevant events and photo evidence of these events, such as a decommissioned station in its commissioned and decommissioned states.
 - Invoices or receipts for any relevant processes, confirming such things as equipment hire/labour costs/transport costs/disposal costs etc.
 - Transferring operation of a station does not prevent that station's accreditation from being withdrawn. There are a number of occasions where we might withdraw station's accreditation when or if the operator of this station has changed. These reasons might be, but not limited to, a material change made to an accredited station or if we believe that accreditation was based on incorrect information provided by a previous operator.

- In certain instances, an operator may request that they want to withdraw an application; in such cases, the operator should explain why they want to withdraw accreditation and why they believe that the conditions for accreditation withdrawal have been met. The operator should refer to the circumstances in Paragraph 2.54 and provide any appropriate third-party evidence.
- 2.56 We will confirm our decision, including the date of withdrawal of accreditation, as appropriate. Depending on the reason for accreditation being withdrawn, we may revoke some or all of the ROCs issued. Chapter 5 deals with the circumstances in which we may revoke ROCs.

Change of operator

- 2.57 When taking over operation of a station, it is the new operator's responsibility to obtain all appropriate records from the previous operator. This includes any information which was provided to Ofgem during the accreditation process. If we audit a station, the new operator is expected to supply documentation from the date the station, and for some evidence prior to, commissioned, to evidence the installations eligibility on the scheme.
- 2.58 In order to change the operator of a generating station, please email us at renewable@ofgem.gov.uk to request this change. The team will then send you a transfer request form. Once received, complete and send the form along with the relevant supporting documentation to renewable.enquiry@ofgem.gov.uk The current operator can also upload the form via the superuser on the RER.
- 2.59 We are not obliged to share the information that we hold about a generating station with the new station operator following a change in operator of a generating station. The new operator may need to submit a Freedom of Information (FOI) request or an Environmental Information Regulations (EIR) request to obtain this information from us. If you would like to make a request for recorded information held by Ofgem, please submit it to our Information Rights team. To do this, either email us at information.rights@ofgem.gov.uk (preferably in plain text) or write to us at: Information Rights Officer, 10 South Colonnade, Canary Wharf, London. E14 4PU.

3. Audits and Compliance

Chapter summary

Here we explain the process of auditing accredited generating stations. This includes giving more detail on why stations are audited, what is reviewed during an audit and what happens after the audit is complete. It also deals with compliance investigations, what these investigations entail, and the relationship between audit and compliance investigations.

Ofgem audit programme

- 3.1 We routinely carry out audit checks on accredited generating stations to make sure generators are complying with the scheme rules. Auditing can help identify and protect against errors and fraud. These checks also ensure that a station remains eligible, that we hold all of the most up-to-date information for a station and that the operator is receiving the correct number of ROCs.
- 3.2 We undertake a targeted audit programme, selecting stations for audit based on a number of reasons such as concerns regarding a stated commissioning date, metering arrangements or inaccurate data submissions,
- 3.3 Since 2020, we've also undertaken a statistical audit programme on the RO, which is carried out alongside the targeted audit programme. Accredited stations are selected for audit at random as part of the statistical audit programme. The purpose of this programme is to increase our understanding of the level and types of non-compliance across the wider scheme population.

What is reviewed during the Audit process

3.4 Audits are carried out by an external contractor on Ofgem's behalf. They usually involve a site visit to the generating station and a review of associated documentation and evidence which was provided to us during the accreditation application process. This includes all documents in relation to the commissioning¹⁸ procedures, as well as all documents to support the station's eligibility to receive support under the RO scheme.

¹⁸ See definition of "commissioned" in Article 2(1) of the ROO 2015 (as amended), RO(S) Order 2009 (as amended) and NIRO Order 2009 (as amended).

[&]quot;commissioned", in relation to a generating station, means the completion of such procedures and tests in relation to that station as constitute, at the time they are undertaken, the usual industry standards and practices for commissioning that type of generating station in order to demonstrate that that generating station is capable of commercial operation.

The auditors will make contact with the operator to arrange the site visit, which should take place within three weeks of receipt of the audit notification letter.

- 3.5 The auditors' review includes, but is not limited to; commissioning evidence, site configuration, capacity, metering arrangements, and the output data that has been submitted for monthly ROC claims (see Chapter 4 of this guidance for information on submitting data). If a station is accredited under more than one generating station, the audit will cover all of the schemes the station is accredited under. Operators of stations should keep all of the appropriate records, such as test documents and meter records from the time of the station commissioning onwards. such This ensures the operator can provide a full audit trail at the time of audit.
- 3.6 Operators should provide the auditors with all information requested during the audit process within the timescales provided. Any information that remains outstanding will be listed in the audit report and could affect the assurance rating of the audit.
- 3.7 In line with the accreditation conditions, the auditors may request further information from the generator than what was requested and provided during the application process. The purpose of requesting further information at the audit stage is to ensure that what has previously been provided to us is accurate, reliable, and materially correct. A failure to provide information to the auditors could also lead to compliance action, including the refusal to issue ROCs to the generating station until such time as the information has been provided and is satisfactory.
- 3.8 Ofgem recognises that generating stations which commissioned before 1 April 2009 in Scotland, Wales and England, and those which commissioned before 1 May 2009 in Northern Ireland, face additional challenges demonstrating when they initially commissioned. We have therefore decided to change our approach for these generating stations such that we now waive the requirements for such commissioning evidence as part of ongoing and future audits. Generating stations which commissioned prior to these dates will no longer be required to provide this evidence as part of our audit program. However, please note that this approach may be revised at a later date and operators must continue to retain all evidence and documentation to demonstrate they meet the eligibility requirements under the scheme.

What happens following an audit

3.9 Following a site visit, the auditor will write up a report detailing what was assessed during the audit, along with any findings to be addressed and, where appropriate, outstanding information to be provided by the operator. The steps involved in the audit procedure are as follows:

- audit pack collation,
- site visit,
- draft report being submitted to Ofgem,
- draft report being reviewed and then finalised by the auditor and
- final audit report being sent to the operator to action
- 3.10 This process usually takes approximately three months but can take longer due to complexities or changes needed to the report.
- 3.11 Once the audit report is finalised, Ofgem will aim to write to the generator concerned within 2-3 weeks and outline any findings. The generator is expected to address these findings and respond to us within 4 weeks, providing all of the relevant evidence to resolve the issues that have been highlighted.
- 3.12 The usual timeline for an audit, along with the steps involved in the audit process, are outlined in Figure 3 below:



Figure 3: Timeline of an audit

3.13 Any inaccuracies identified in the accreditation application, output submission or other records we hold, will be reviewed to ensure that the generating station is compliant with the scheme's rules. Once Ofgem is satisfied with the changes, we will require the accreditation or data submissions to be updated with the relevant amendments on the

RER. The amendments should only be applied to the accreditation and data submissions when the audit process has been completed and the findings resolved.

- 3.14 Where non-compliant stations have been identified during the audit, the Participant Compliance team will lead on investigating these issues and any outstanding matters highlighted in the report.
- 3.15 Where the audit raises concerns relating to the station's eligibility, or the accuracy and reliability of the information which has been provided to us, we may refuse to issue ROCs until the audit findings have been satisfactorily addressed. We may also refuse to issue ROCs to a station where the generator is not responding to information requests.
- 3.16 There are different actions Ofgem may take following an audit identifying noncompliances and can include attaching and amending conditions of accreditation, revoking or refusing to issue ROCs, and/or adjusting levels of support a station will receive.
- 3.17 We also have provisions to withdraw accreditation in certain circumstances. These circumstances include but are not limited to:
 - where the information to grant accreditation is incorrect in a particular material.
 - where there is evidence the station provided fraudulent information to gain accreditation.

A withdrawal of accreditation may also lead to the revocation of any ROCs which have been issued to a station and the refusal to issue future ROCs as appropriate.

- 3.18 Delays in resolving audit findings can occur when RO operators do not provide comprehensive responses and, where relevant, third-party supporting evidence. To avoid any delays, operators should aim to provide a full response with all third-party supporting evidence by the response deadline set out within the audit findings letter.
- 3.19 Where we have issued an information request for a station, we encourage generators to engage with our auditors and with us as early as possible if there are any issues with presenting the information to Ofgem for consideration. Generators should not wait until the deadline set by Ofgem to initiate requests for extensions.
- 3.20 During the audit, there may be circumstances where we may request additional information to what was requested during the accreditation process eg, if we have concerns regarding the accuracy, reliability, and material correctness of the commissioning evidence. We may ask the operator to provide contemporaneous evidence

from sub-contractors to verify the date in which the testing was carried out to the relevant industry standard.

- 3.21 All the information which was provided to us in order to obtain accreditation is required to be held by the operator and provided to Ofgem if requested during an Audit or Compliance investigation.
- 3.22 Where the operator of a generating station changes it is the responsibility of the old operator and the new operator to obtain and retain all information provided during the accreditation process, in line with the generating stations conditions of accreditation.
- 3.23 Operators should not rely on audits occuring before updating their application for accreditation or any associated information regarding their accreditation. If they do, this can often result in a high number of audit findings to resolve. In line with accreditation conditions the operator must inform Ofgem within 2 weeks of any change occurring at the generating station.
- 3.24 If an audit identifies that a generating station has been decommissioned, we will request evidence from the operator in order to withdraw the accreditation. For further information on the process of withdrawing accreditation, please see Chapter 2 'Accreditation under the RO' above.

Assurance Ratings

3.25 There are various assurance ratings provided. These are shown in Table 3.1 below:

Assurance Rating	General Description
Good	No issues found during audit.
Satisfactory	Audit found minor issues or has recommended introduction of best practice
Weak	Audit found moderate issues of non-compliance.
Unsatisfactory	Audit found major issues of non-compliance.

Table 3.1: Assurance ratings used by the Audit team

3.26 The Audit team now close all 'good' and 'satisfactory' rated audit reports once the final report has been received and provided to the operator. We ask operators to address any findings issued in the findings letter following the audit. If applicable, any

amendments required to the application for accreditation, output data submissions or FMS procedures are passed on to the relevant teams within Ofgem by the Audit team. If appropriate, the relevant team will be in contact with the operator once they have reviewed the outstanding findings and you do not need to contact these teams directly in the meantime.

- 3.27 While the Audit team may not confirm the resolution of all of the audit report findings with operators before the closure of 'good' and 'satisfactory' rated audits, as per the conditions of accreditation, we may audit these generating stations again in future and we expect audit findings to have been addressed.
- 3.28 Please note that the closure of these audits does not impact our ability to take compliance action and our Participant Compliance team may continue to investigate any instances of non-compliance following the closure of an audit.

4. Submitting output data and supporting evidence

Chapter summary

In this chapter the operator can identify the information we need to determine whether to issue ROCs. There is also a timetable for submitting information, and we explain what happens if we receive information after the deadline, or if information is inaccurate.

- 4.1 This chapter is for non-fuelled stations only. Fuelled stations should refer to the Chapter4 of the RO: Fuel Measurement and Sampling Guidance. This chapter covers:
 - How to submit output data
 - Information you need to submit
 - When to submit output data
 - Responsibility for data submissions
 - Accepting estimated data
 - Reviewing output data
 - Meaning of output data status
 - Amending data submissions
- 4.2 Article 29 of the Orders¹⁹ explains how to calculate renewable output, for issuing ROCs. This is:

Net renewable output = (Gross output – Input electricity) x Renewable qualifying percentage

4.3 ROCs issued under the CHP uplift take into account the qualifying power output (QPO) and total power output (TPO) as represented on the CHPQA certificate for the relevant period. For generating stations where TPO = QPO, so 100% of generation is considered good quality, the station will receive the relevant ROC banding uplift (outlined in Appendix 4) on 100% of their RO eligible output in a given month. Where QPO ≠ TPO the relevant uplift will only apply to the percentage of output considered good quality (so QPO/TPO).²⁰

¹⁹ Article 25 of the RO(S) 2009 (as amended), and Article 23 of the NIRO 2009 (as amended).

²⁰ The 'energy from waste with CHP' band is not considered the 'CHP uplift' as being a qualifying CHP generating station is an eligibility requirement. For stations generating electricity from waste ROCs are only issued on the qualifying output. The non-qualifying output would receive no ROCs.

- 4.4 Generators of accredited stations must give us accurate and reliable generating and input electricity data so we can issue ROCs. For stations using fuels, we may also need information about the fuels used, as agreed as part of the station's FMS procedures (see our guidance on this) to determine the proportion of renewable electricity generated or to assist in satisfying the sustainability reporting requirements.
- 4.5 Output data (the term used for the information you provide to claim ROCs each month) is submitted through the generator's account on the RER. Evidence to support data submissions, explained later in this chapter, should be emailed to renewable.outputdata@ofgem.gov.uk.
- 4.6 All stations with a DNC of greater than 50kW must submit data every month. Microgenerators (operators of generating stations with a DNC of 50kW or less) can choose to submit data monthly or annually).

Table 4.1: Key terms for output data submissions

Term	Definition
Gross output	The total amount of electricity generated by a generating station. ²¹
Input electricity	The total amount of electricity used by the generating station for purposes directly related to the operation of that generating station. This includes fuel handling, fuel preparation, maintenance and pumping water. This is whether that electricity is generated by the station or used while the station is generating electricity. ²² For more information, please see Paragraph 4.13.
Net output	This is the gross output minus any input electricity. You should not deduct input from the gross output when submitting the data to the RER as the RER will calculate this for you.

How to submit output data

4.7 Data is submitted through your account in the 'Output data' tab. When submitting output data on the RER, you will be asked to report various readings, depending on your application. All figures that you submit should be for the period of generation only, and not a cumulative meter reading.

Output data for offshore wind generating stations

 ²¹ Article 25(6) of the RO(S) 2009 (as amended), and Article 23(6) of the NIRO 2009.(as amended).
 ²² Article 26(1) of the ROO 2015 (as amended), Article 24(6) of the RO(S) 2009 (as amended) and Article

²²⁽⁶⁾ of the NIRO 2009 (as amended).

4.8 The Orders set out that ROCs cannot be issued on any generation by offshore wind turbines that have not been registered with us. In instances where monthly output figures represent generation by registered and unregistered turbines, generators will need to contact us at <u>renewable.outputdata@ofgem.gov.uk</u> to agree a methodology that will enable them to determine the output of the generating station that should be attributed unregistered offshore wind turbines and the part of the output eligible for ROCs.

Information you need to submit

Electrical information

- 4.9 When generators applied for accreditation under the RO, they were asked to show the position of their metering and the meters they wished to use to claim ROCs. Meters may include a single net output meter, multiple meters determining on-site usage, export and input electricity meters.
- 4.10 The generation and input electricity information should be based on meter readings taken by, or on behalf of, the generator. There are two types of meter readings commonly used to claim ROCs:
 - Manual meter readings: these are readings taken from the display of the meter at the beginning or end of each month. The difference between the start and end reading should then be submitted as output or input, depending on what is being measured. We recommend you take photos at the same time as you take the readings. Operators are not required to send us the photos each month, but if we query your data submission, they will be useful supporting evidence. Every effort should be made to ensure that meter readings are taken at the same time every month.
 - *Half-hourly data:* this is data provided to the generator by a supplier or data collector in a spreadsheet showing generation in each half-hour period in that month. The total of the readings for that month should be submitted as output or input, depending on what is being measured. We do not always require this data, but we recommend having it as supporting evidence, particularly if the station is off-grid. If we have cause to question your data submission, it will show exactly what is generated by a station.
- 4.11 All meter readings should be recorded and retained together with supporting evidence, including photographs of the metering, invoices showing the sale of electricity, half-hourly data etc.

4.12 Should we query and find that data cannot be validated effectively with meter photos or half-hourly data we may need to review and apply a retrospective estimate on the data which may impact the number of ROCs claimed.

Input electricity

- 4.13 Sources of input electricity include:
 - electricity generated by the generating station used by loads directly associated with the operation of the station (parasitic loads),
 - imported electricity,
 - standby generation electricity.
- 4.14 All generators are required to report input electricity associated with the generating station, no matter how high or low this value may be.

Accounting for input electricity

- 4.15 To calculate the net renewable output, the Orders²³ require input electricity to be deducted from the gross output (if the input electricity is more than 0.5% of gross output). This deduction is calculated by the RER for the station. It includes any electricity used by the sets of equipment (as described in Chapter 2) and any used for maintenance, which must also be deducted in the monthly calculations. Input deductions must not be done before submitting output figures.
- 4.16 The Orders also provide for the calculation of input electricity at the unit level. This is used by co-firing and conversion generating stations who fall under the annual ROC cap²⁴ details of which can be found in Appendix 6.
- 4.17 If input electricity to the generating station does not exceed 0.5% of the station's gross output in a month, the input electricity will not be deducted for issuing ROCs. You must still submit the input electricity data in this case as the RER will calculate whether the input electricity is below the 0.5% threshold.

²³ Article 29 of the ROO 2015 (as amended), Article 25 of the RO(S) 2009 (as amended), and Articles 23 and 24 of the NIRO 2009 (as amended).

²⁴ Schedule 6 of the ROO 2015 (as amended).

Standby generation

4.18 Standby generation is defined in the Orders as:

"the generation of electricity by equipment which is not used frequently or regularly to generate electricity and where all the electricity generated by that equipment is used by the generating station."

- 4.19 Generating stations which have standby generators must have mechanical interlocking arrangements, or equivalent, in place to prevent the electricity generated from such generators being exported or used in such a way that might augment the monthly ROC claim.
- 4.20 If the use of standby generation meets the definition of input electricity it must be reported as part of the stations monthly data submissions. Any standby generators must be declared on the application for accreditation so we can determine how they should be treated for the purposes of claiming ROCs.

When to submit your output data

- 4.21 ROCs could only be claimed on electricity that has been generated on or after your accreditation date. So, the first data submission may not represent the whole month generation figure (or a whole year in the case of microgenerators who submit data annually).
- 4.22 If a station was already commissioned when the application was submitted, applicants for both monthly and annual issue of ROCs should take an initial meter reading on the day they submitted their application. This is because the reading will coincide with the accreditation date.
- 4.23 If the station had not yet commissioned when the application was submitted, applicants should take an initial meter reading as soon as the generating station had commissioned. This is because this reading will coincide with the accreditation date.
- 4.24 Applicants should not wait until the station has been granted accreditation before submitting data. After your initial data submission, data should be submitted for full calendar months.

Submitting data

4.25 For the majority of stations, data should be submitted on a monthly basis. Generators have two months after the month of generation to submit their data to us.²⁵ Figure 4 shows an example of the timeline:

Figure 4: Example timeline for submitting monthly data



- 4.26 The timelines for data submission and certificate issue are published annually in the 'Renewables Obligation Certificate (ROC) issue schedule' on our <u>website</u>. For microgenerators making annual submissions, this two-month submission period also applies. For example, data for annual submissions (1 April – 31 March) should be received by 31 May.
- 4.27 As part of the initial accreditation application, microgenerators (\leq 50 kW DNC) can opt to claim ROCs monthly or annually.²⁶ The output data they provide to us will relate to the chosen period.
- 4.28 Some co-firing and conversion generating stations will be required to submit their monthly data on a unit by unit basis in order to monitor ROC issue against the annual ROC cap.²⁷ To check whether this applies to you please refer to Appendix 6.
- 4.29 Some stations may also be asked to provide annual validation in line with their accreditation status (particularly off-grid or de-rated stations and those operating close to the NIROC rate boundary).

 $^{^{25}}$ Article 80(2) of the ROO 2015 (as amended), Article 53(3) of the RO(S) 2009 (as amended) and Article 45(3) of the NIRO 2009 (as amended).

²⁶ Article 94 of the ROO 2015 (as amended), Article 60 of the RO(S) 2009 (as amended) and Article 52 of the NIRO 2009 (as amended).

²⁷ Schedule 6 of Renewables Obligation (Amendment) Order 2018.
- 4.30 When submitting data, it is important to consider the following:
 - Operators are required to wait until the end of the output period before submitting data.
 - Operators should take the meter readings once a month. This should be done either the day before or the day after the end of the month and at the same time each month.
 - Operators should submit the data once a month in line with the relevant deadline
 - Operators should let us know by email if they intend to amend or submit their output data outside the two-month window. If we are not advised, we may not know that it needs reviewing and certificate issuance might be delayed.
 - Operators should keep evidence of all meter readings invoices, half-hourly data or time-stamped photos. If operators are taking manual reads and do not have half-hourly data, then photographs of the meter should be kept when it is read as proof of output. This will be important for audit purposes.

What will happen if late data is submitted

- 4.31 If an operator knows before the deadline that there is a reason they will not be able to submit data prior to that deadline, they should contact us by sending an email to <u>renewable.outputdata@ofgem.gov.uk</u> prior to the deadline. Otherwise, it will be considered as 'late data'.
- 4.32 We strongly recommend that operators keep hold of confirmation of when their data was sent to us in case we need evidence that the information was sent before the deadline. This information will be contained in the activity history of the RER, and a notification email will also be sent when new activity occurs on the RER account. For help with setting this up, contact the team on 0207 901 7310.
- 4.33 The Orders give us the discretion to accept generation data submitted outside the twomonth deadline²⁸ if we think it is appropriate to do so. We will consider each late data submission on a case by case basis.
- 4.34 When deciding whether to accept late data, we take into account the reasons for the late submission, how many times data for the station has been submitted late, and any previous correspondence with a generator regarding previous late data cases. If data is

 $^{^{28}}$ Article 80(3) of the ROO 2015 (as amended), Article 53(4) of the RO(S) 2009 (as amended) and Article 45(4) of the NIRO 2009 (as amended).

regularly submitted late, the relevant ROCs will not be issued. If there have been repeated but infrequent instances of late submissions, circumstances must be truly exceptional if ROCs are to be issued.

Process for late data

- 4.35 When a generator submits data late via the RER, they will receive a flag on the data which shows its late status. As the data is submitted after the deadline, it will get suspended and you will need to provide an explanation on the output page as part of your submission.
- 4.36 Supporting evidence for the late data claim should be sent within 4 weeks of the late data claim to <u>renewable.outputdata@ofgem.gov.uk</u>. The generator should also explain whether we had been previously notified that the claim would be late. This email should state the name of the generating station and the period that the claim relates to. Once we have received this information, we will review the case and inform the generator of the outcome in writing.

How to change how often ROCs are issued

- 4.37 Only microgenerator stations can change how often ROCs are issued. If an operator of an accredited generating station wants to make this change (from monthly to annually or vice versa), they should initially contact the Data team by email at <u>renewable.outputdata@ofgem.gov.uk</u>.
- 4.38 The microgenerator must then amend their accreditation on the RER by 28 February for the change to take effect from the start of the following obligation period. Once we have received this notification, we will confirm the changes to the operator in writing in writing.

Supporting evidence

- 4.39 Once an accreditation has been granted, we will request supporting evidence for the data you have submitted, such as meter readings, photographs of metering, half-hourly data or any calculations agreed as part of the accreditation.
- 4.40 Although this evidence is not always requested it should be kept on record by the generator in case it is required by us, for example for audit purposes.
- 4.41 The RER supports all the various file types, and they can all be uploaded on the output submission section. We encourage operators to make use of this functionality and upload all relevant data. If information cannot be provided via the RER, it can instead be sent via email to renewable.outputdata@ofgem.gov.uk.

Responsibility for data submissions

- 4.42 It is the operator's responsibility to ensure we have received the information for their ROC claim within two months from the month of generation.
- 4.43 It is possible for the operator to authorise a third party, such as their supplier or a data collector, to provide the data on their behalf. If an operator wishes to use a third party for this, the superuser of the generator account can nominate them as a contact. If they do so, it is still the operator's responsibility to ensure we have received the right information.

Accepting estimated data

- 4.44 If a generator satisfies us that it will never be able to provide accurate data, we can accept estimated data for issuing ROCs. An example of this could be failure of metering equipment which means that an accurate reading is not possible.
- 4.45 Data estimates should be conservative, and the method agreed in advance of submitting output data. The generator should contact us as soon as the need for an estimate arises, before the deadline or, if the data has been entered erroneously, within two weeks of the need for estimated data being identified. Estimated data cases may not be accepted if they are submitted outside these deadlines, if the methodology is deemed not to be conservative or if there is a lack of proof that renewable electricity generation occurred.

Making an application for estimated data

- 4.46 The generator should flag where data is estimated by answering "Yes" when asked "Is this estimated data" during submission. Comments may be added including:
 - reasons why an estimate is required and the date(s) on which the issue occurred,
 - the proposed methodology,
 - the period the estimate will cover, and
 - details of how and when the issue was/will be resolved.
- 4.47 It is the generator's responsibility to present such cases to us with the evidence clearly laid out. To ensure that we can review the estimate promptly, once an application for estimated data has been made via the RER, the generator should email any associated documents or calculations to us at <u>renewable.outputdata@ofgem.gov.uk</u> or attach them to the submission page using the 'supporting documents' function. This email should clearly state the name of the generating station and the period which the estimate is for.

We will not calculate the estimate on behalf of the generator and the estimate will be rejected, or sent back, if it is not clear or incorrect information is used.

4.48 Once we receive the application, we will review it to determine whether the proposed methodology is appropriate. If we do not think it is, we will inform the generator and will not issue ROCs. In these circumstances the generator may wish to submit a revised or alternative methodology. If we accept the estimate, we will issue the ROCs accordingly.

Generating stations that export to the network

4.49 Operators of generating stations that export to the network will need to provide confirmation that actual meter reads cannot be recovered.

On-site use and private wire generating stations

4.50 On-site use and private wire generating stations with meter failures will be required, as a minimum, to provide supporting correspondence from the engineer repairing/replacing the meter. They should also provide us with their proposed methodology for the estimate, clearly showing all relevant calculations.

Metering communication failure

4.51 We will not accept estimated data for a metering communication failure for a period longer than a month unless there is evidence of exceptional circumstances. If there has been a metering communication failure, but meters are still working, manual meter readings (with photographic evidence) can be taken to replace remote readings until communications are restored.

Reviewing output data

4.52 When the generator submits output data, we review it before we issue ROCs. Figure 5 below shows the different statuses certificates will be in up until the point they are redeemed.

Figure 5: Certificate statuses



- 4.53 In addition to this internal review, the RER checks each submission. These checks include:
 - the feasibility of the outputs,
 - a comparison with the previous month,
 - whether the data is first submitted within the statutory two-month deadline (see 'Accepting estimated data', Section 4.44),
 - whether the data has been amended (see 'Amending data submissions', Paragraph 4.58),

- whether the accreditation has been approved, including any accreditation amendments,
- whether there are any outstanding declarations to be agreed by the superuser of the account,
- if fuelled if the submission exceeds fuel efficiency calculations,
- if fuelled if the fuel quantity/GCV/contamination is the same as the previous month, and
- whether the data submission contains estimated data.

Output data queries

- 4.54 If the RER flags any queries with the output data, it will alert the user to the relevant output data anomaly (called data 'exception' on the RER) upon submission.
- 4.55 The RER provides a comments box to add any information which may be relevant to the data anomaly, however, note that not all data exceptions will require you to leave a comment. Please ensure you understand why this anomaly has been raised and provide an appropriate comment, with as much detail as possible to minimise delays to ROC issue. We will then review these comments as part of the data review process.
- 4.56 During this review, we may raise queries on the data and ask for additional information. Any queries raised will appear in your account. We will not process your data until you have responded to all queries and the requested information is provided.

Meaning of output data status

- 4.57 As the certificates are being processed, they will have different 'Statuses'. The meaning of these statuses are:
 - *Due* Output data is due to be submitted before it is classed as late.
 - *Pending* If data passes automatic checks, the data team may carry out a final review and choose to raise queries. Otherwise, this is the stage before where data is approved and certificates (usually ROCs) are due to be issued.
 - *In Review* Your data is flagged for review by a member of the data team.
 - *With Applicant:* A member of the data team has raised queries on the data for you to answer, it is only once the queries are responded to adequately that the data reviewer may approve the data submission.

- *Issued* The ROCs have been issued to your account. You can view or transfer them on from the certificates tab of your account.
- *Declined* No certificates will be issued for this submission.

Amending data submissions

- 4.58 We can accept amended data submissions if we consider it appropriate. Data may require amendments for a number of reasons. For instance, the generator may realise that the information originally submitted is incorrect or we may have become aware of this through an audit.
- 4.59 Where a generator realises the original submission was incorrect, they must amend the month the error occurred in order to reflect the correct figures. They must not alter the figure for the current month to account for it. Each month must reflect only the generation during that month.
- 4.60 We will consider each request to issue ROCs on revised data case by case. We will:
 - be consistent about errors. This means that we will treat errors that result in issuing too many ROCs in exactly the same way as errors that result in issuing too few ROCs,
 - correct all errors that are identified before the ROCs are issued,
 - test the significance of the errors identified after the ROCs have been issued to determine if, due to the data amendment, there will be a difference to the number of ROCs issued.
- 4.61 If a generating station, or other party, chooses to trade a ROC that is subject to a data error enquiry, it does so in the knowledge that the ROC could be revoked at any time.
- 4.62 If we revoke ROCs which have already been transferred, it is the generator's responsibility to liaise with the party who receives these ROCs. Once data has been amended and certificates are to be revoked, we will email the current holder of certificates to notify them that certificates will be revoked after a 10-day period.
- 4.63 The Orders require us to be satisfied that the information we receive is reliable and accurate, so if there are continual errors, we may refuse to issue ROCs until we are satisfied the generating station has robust procedures in place.

Process for amending data

- 4.64 If data is amended by the generator outside the two-month data submission window, the RER will flag this by sending a message to the generator showing that the output data was amended when it was resubmitted.
- 4.65 This is an opportunity for the generator to explain in the comment box why the data was incorrect and what amendments they have made.
- 4.66 So that we can review the amendment properly, we recommend that any supporting evidence be submitted via the RER along with the resubmitted data. This will help speed up the process and ensure we can review the amendment quickly and efficiently.
- 4.67 We will review the information and the generator will be notified of the outcome. If the result is that we revoke or withhold future ROCs we will ensure that we are in contact with the generator before this happens.

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5. Receiving and using (ROCs)

Chapter Summary

Describes what ROCs are, how we issue them and the circumstances in which we may revoke or refuse to issue them.

- 5.1 ROCs are electronic certificates issued to operators of accredited generating stations based on the net renewable electricity generated by their station.
- 5.2 We issue ROCs into a generator's account on the RER. ROCs can then be transferred between registered account holders whether they are other generators, suppliers or other participants in the scheme. A ROC can only be generated, issued, revoked, transferred, redeemed and retired via the RER.
- 5.3 The number of ROCs that can be issued for each MWh of renewable electricity generation depends on a number of factors. These include:
 - the technology used at the generating station,
 - the location of the station,
 - the installed capacity of the generating station,
 - the date that the station was accredited under the scheme,
 - if applicable, the date on which any additional capacity was commissioned, and
 - the fuel mix used at the station.
- 5.4 For more information regarding the number of ROCs issued per MWh of electricity generated by each technology as well as capacity limits, please refer to the Tables in Appendix 4.

Process for issuing ROCs

- 5.5 To claim ROCs, a generator must submit output data via their account on the RER. Chapter 4 of this guide explains how to do this.
- 5.6 We carry out a number of automated and manual checks on the data once it has been submitted. We will raise queries with generators as appropriate. The RER will then generate ROCs and we will carry out checks to ensure the correct number and type of certificates has been created.

- 5.7 To calculate the number of ROCs, the output is rounded to give the nearest whole ROC. This may be rounded up or down. The Orders do not allow for fractions of a ROC to be carried forward to the following month.
- 5.8 Assuming everything is correct, the ROCs will be issued directly to a generator's account on the RER in accordance with our published ROC issue timetable. The superuser and other approved users of the account who have set up the relevant email notifications will be informed via email when this happens.
- 5.9 ROCs will only be issued after a station has been granted full accreditation, and will only be issued for renewable electricity that has been generated on or after the accreditation date of the station in question. Chapter 4 provides further details.
- 5.10 If ROCs have not been issued in accordance with our timetable, generators should check their accounts to see whether we have raised any data queries. You can set up email notifications via the RER for a variety of functions, including when a data query is raised. We would strongly recommend making use of this functionality. Although the deadline for submitting data is a statutory deadline, the ROC issue date is not. However, we recognise the importance of maintaining stability within the ROC market and aim to issue ROCs as per the specified date shown in the ROC issue timetable.
- 5.11 If queries relating to data submissions remain unresolved when the main certificate batch is created, the ROCs will be issued outside of the ROC issue Schedule.

Information represented by a ROC

5.12 The Orders set out that a ROC must contain certain information²⁹ and each ROC is issued with a specific code along with other information in the RER, known as the ROC identifier.

²⁹ Schedule 4 of the ROO 2015 (as amended) and RO(S) 2009 (as amended), Schedule 3 of the NIRO 2009 (as amended).



- 5.13 Figure 6 shows a ROC identifier. It shows that this is the first ROC (certificate number 000000) in a sequence for generation that took place in October 2011. The ROC has been issued to offshore wind station '00001' located in England which is claiming under the ROO 2015. The ROC is issued for offshore wind generation, which is grandfathered.
- 5.14 ROCs are issued in ranges in ascending numerical order always beginning with 000000, so zero constitutes the first ROC. For example, if three ROCs for April 2015 are issued to an onshore wind generating station with the accreditation number of R00001RQEN, they would be issued as follows:

'R00001RQEN0000000415NWC' to 'R00001RQEN0000020415NWC'

- 5.15 Please note that the certificate number format for the Unit Conversion (UC) banding in respect of output data from November 2019 contains seven digits (as opposed to six for all other technologies). If you are a generating station that claims Unit Conversion ROCs, please ensure that you notify any parties (for example suppliers) that may be affected by this change.
- 5.16 It is possible for generating stations to be issued multiple ROC ranges to denote generation within a single generation period. Reasons for this may be:
 - if a fuelled generating station has generated from multiple fuels, for example energy crops and regular biomass, or
 - if a generating station is claiming on original and additional capacity.
- 5.17 Information on ROCs that have been issued, including details of the certificate range, is available via our public reports on the RER log-in page.

Length of time ROCs can be issued

- 5.18 In most cases, ROCs can only be issued to each generating station/additional capacity for a maximum period of 20 years or until 31 March 2037, whichever is earlier. There are a few instances whereby this does not apply eg, stations which were accredited in 2002. 31 March 2037 is the ultimate cut-off date for issuing ROCs, as no ROCs can be issued on any generation that occurs after this date. For certain generating stations, ROCs can be issued for generation that occurred up to the original end date of the RO, 31 March 2027. Depending on the station's accreditation date ROCs may be issued for a period more or less than 20 years.
- 5.19 The key dates and criteria are as follows:
 - Operators of generating stations that have an accreditation date of on or before 25 June 2008 will not be issued with ROCs for generation beyond 31 March 2027. This includes any additional capacity that was commissioned at the generating station on or before 25 June 2008.
 - Operators of generating stations that have an accreditation date after 25 June 2008 will see their RO support end on the 20th anniversary of their accreditation date or 31 March 2037, whichever is the earlier.
 - Operators of RO accredited generating stations that have commissioned additional capacity at their station after 25 June 2008 will receive RO support for 20 years from when the additional capacity was commissioned. Again, this support would end on 31 March 2037 if this date came before the 20 years had elapsed.
- 5.20 The above criteria still apply even if the generator does not claim ROCs, or becomes ineligible to claim ROCs, for a particular period
- 5.21 For offshore wind generating stations accredited on or after 1 April 2011 (or additional capacity added to offshore stations after that date) only, the 20 years of RO support does not apply to the accredited capacity from the point of accreditation. Instead, 20 years of RO support is realised on each group of turbines from the date on which they were registered with us. However, the 31 March 2037 cut-off still applies. Please see Appendix 3 for information regarding registration of offshore wind turbines.

Ofgem's role in trading ROCs

5.22 We do not have any role or responsibility trading ROCs, the contractual arrangements for trading ROCs or monitoring/setting the price of ROCs.

5.23 Once ROCs have been issued to generators it is their responsibility to ensure that they are transferred promptly to their off-takers. They should also ensure that contractual arrangements are in place with such off-takers to transfer their ROCs. The RER sends notifications to inform transferors/transferees of the progress of a ROC transfer. However, it remains the responsibility of the parties involved in the transfer to ensure that the transaction is completed within the relevant statutory and contractual deadlines.

Validity of ROCs

- 5.24 The Orders place an obligation on licensed electricity suppliers to present ROCs to us³⁰ on an annual basis, pay into a buyout fund or do a combination of both. The process of producing ROCs to us for compliance is known as 'redeeming ROCs'.
- 5.25 Licensed suppliers must produce ROCs for compliance no later than 1 September following the end of the relevant obligation period. The Orders state that if they are making payments into the buy-out fund, they should do this by 31 August. Any suppliers who have not met their obligations by 1 September must make a late payment, subject to a daily interest penalty, by 31 October. In meeting their obligation, suppliers can only use ROCs issued in the obligation period in question or a certain percentage of 'Banked ROCs' (ROCs issued in the immediately preceding obligation period), or a combination of the two.
- 5.26 For example, ROCs issued for the 2021/22 obligation period (electricity generated between 1 April 2021 and 31 March 2022) cannot be produced to us by suppliers any later than 31 August 2022.
- 5.27 Given this, once ROCs have been issued, the generator must transfer them promptly so that a licensed supplier can use them against their obligation. Generators should be aware that if ROCs are retained in their accounts for significant periods of time they may be unable to transfer them, or the certificates may expire and become worthless.
- 5.28 For more information on the role of suppliers, please refer to the Energy suppliers³¹ page on our website. For more information on Banked ROC's, please refer to Banked ROCs FAQ.³²
- 5.29 For stations that use only regular biomass and also use liquid fuels alongside solid or gaseous fuels, FMS procedures will have to be agreed with us to account for the energy

³⁰ Article 7(2) of the ROO 2015 (as amended) and Article 5(2) of the RO(S) 2009 (as amended) and NIRO 2009 (as amended).

³¹ <u>https://www.ofgem.gov.uk/environmental-programmes/renewables-obligation-ro/information-suppliers</u>

³² https://www.ofgem.gov.uk/publications-and-updates/banked-rocs-fag

content of liquid fuels. This is so that ROCs can be awarded according to the physical state of the fuel and therefore ROCs subject to the cap can be identified. Please refer to our RO: Fuel Measurement and Sampling Guidance³³ for further information.

Reasons why Ofgem will refuse to issue ROCs

- 5.30 We may refuse to issue a ROC in certain circumstances. These scenarios include, but are not limited to:
 - if we are not satisfied that the information presented to us is reliable and accurate,
 - if we do not think that the declaration submitted in accordance with Article 20 of the ROO 2015 (as amended), 36 of the RO(S) 2009 (as amended), or 34 of the NIRO 2009 (as amended) is accurate in relation to electricity upon which we are considering issuing the ROC,³⁴
 - if an operator has over claimed ROCs and those ROCs have been presented by an electricity supplier against their obligation,
 - if an operator fails to respond to an information request made under the RO, RO(S) or NIRO,
 - if a generating station's accreditation is withdrawn,
 - if we have reason to believe that the electricity in respect of which we are considering issuing the ROC was not supplied by an electricity supplier to customers in Great Britain or Northern Ireland,³⁵
 - if a station using bioliquids, or stations with TIC \geq 1MW using solid biomass or biogas in England, Wales or Scotland, does not meet the sustainability criteria,³⁶ or
 - where an operator of a fuelled generating station is required to but does not provide certain annual sustainability information.

³³ <u>https://www.ofgem.gov.uk/publications-and-updates/renewables-obligation-fuel-measurement-and-sampling-guidance-0</u>

³⁴ Article 24(1) of the ROO 2015(as amended), Article 41(1) of the RO(S) 2009(as amended), and Article 37(1) of the NIRO 2009(as amended).

³⁵ Article 24(3) of the ROO 2015(as amended), and Article 41(3) of the RO(S) 2009(as amended).

³⁶ Article 63 of the ROO 2015 (as amended), 22A(1) of the RO(S) 2009 (as amended).

- 5.31 If ROCs cannot be refused because they have been redeemed, we can still take action, as explained in the Orders.³⁷
- 5.32 Where these ROCs are identified and they were issued no more than six years previously, we must refuse to issue further ROCs for electricity generated by the generating station to which the original ROC was issued. The total number of ROCs withheld will align with the number of ROCs that should have been revoked in the first instance.
- 5.33 If we find that redeemed ROCs should never have been issued, we will contact the relevant parties and explain how we will withhold the appropriate number of ROCs from a future ROC issue.

Reasons for revoking ROCs

- 5.34 If a ROC is yet to be redeemed, the Orders set out instances where we may and must revoke a ROC.³⁸ We may revoke ROCs if:
 - the ROC has been issued on the basis of fraudulent behaviour, statement or undertaking on the part of the operator of the generating station or any connected person,
 - the information provided to us by a generator or agent in respect of the issue of ROCs is false,
 - the ROC is otherwise inaccurate,
 - the ROC should not have been issued,
 - we have reasonable doubts over the accuracy or reliability of the information on which the ROC issue was based, or
 - due to a failure or refusal of any person to provide relevant information, we have not been able to check the accuracy of a ROC or any information on the basis of which the ROC was issued.
- 5.35 We must revoke ROCs if UR has notified us that it is not satisfied that the electricity in question has been supplied to customers in Northern Ireland.

³⁷ Article 25 of the ROO 2015 (as amended), Article 41A of the RO(S) 2009 (as amended) and Article 37A of the NIRO 2009.

³⁸ Article 24 of the ROO 2015 (as amended), Article 41 of the RO(S) 2009 (as amended) and Article 37 of the NIRO 2009 (as amended).

- 5.36 Where we intend to revoke a ROC, we shall notify the person who is the registered holder of the ROC 10 working days before revocation. We will also inform the generator of the electricity to which the ROC relates. Once a ROC has been revoked, the registered holder of the ROC will be sent a notification confirming this.
- 5.37 All revoked ROCs will have their status changed to 'revoked' in the RER and cannot be redeemed by a licensed electricity supplier when complying with their Renewables Obligation. We publish information on revoked ROCs in our public reports, as required by the Orders. We do not get involved in disputes between operators and off-takers,³⁹ and any disputes about money owed from revoked ROCs sits with the operator and those in the chain of trading ROCs.

Public information on ROCs

ROCs claimed but not issued

- 5.38 We are required by the Orders to publish information on the number of ROCs claimed but not issued.⁴⁰ ROCs may be claimed but not issued for a number of reasons including if data has been queried.
- 5.39 We will publish on our website a total of all ROCs claimed but not issued in an obligation period. These statistics will not include ROCs that we have decided not to issue. This information is also available via our public reports and published in the Renewables Obligation Annual Report.⁴¹

ROCs issued or revoked

- 5.40 Information on ROCs issued or revoked and their current holders is in our public reports available through the RER home page: RER Public Reports.
- 5.41 Please note that the reports are no longer updated overnight and therefore do contain live information.

Accredited stations report

5.42 Information on the number and capacity of stations that have been accredited is available on our website: www.ofgem.gov.uk/ro.

³⁹ A supplier who enters into a BPPA following an OLR auction.

⁴⁰ Article 86(1e) and (3) of the ROO 2015 (as amended), Article 57(1e) and (2) of the RO(S) 2009 (as amended), and 49(1d) and (2) of the NIRO 2009 (as amended).

⁴¹ The reports can be found at <u>https://www.ofgem.gov.uk/environmental-and-social-</u> <u>schemes/renewables-obligation-ro</u>

Appendix 1: Glossary

Α		
AD	Anaerobic digestion	
AMO	Additional metered output	
Act	Energy Act 2008	
В		
BEIS	Department for Business, Energy and Industrial Strategy	
с		
CfD	Contract for Difference	
СНР	Combined heat and power	
СНРQА	Combined Heat and Power Quality Assurance	
СМ	Capacity Market	
D		
DECC	Department of Energy and Climate Change	
DETI	Department of Enterprise, Trade and Investment	
DfE	Department for the Economy in Northern Ireland	
DNC	Declared net capacity	
DSF	Dual Scheme Facility	
F		
FiTs	Feed-in Tariffs	
FMS	Fuel Measurement and Sampling	
G		
GB	Great Britain	
к		
kW	Kilowatt	

Renewables Obligation (RO)		
kWh	Kilowatt hour		
L			
LCCC	Low Carbon Contracts Company		
м			
MCS	Microgeneration Certification Scheme		
MW	Megawatt		
MWh	Megawatt hour		
Ν			
NFPA	Non Fossil Fuel Purchasing Agency		
NI	Northern Ireland		
NIRO	Northern Ireland Renewables Obligation 2009 (as amended)		
NIROC	Northern Ireland Renewables Obligation Certificate		
0			
Ofgem	Office of Gas and Electricity Markets		
Ρ			
PV	Photovoltaic		
Q			
QPO	Qualifying Power output		
R			
RER	Renewable Electricity Register		
RFFGS	Relevant Fossil Fuel Generating Station		
RHI	Renewable Heat Incentive		
RO	Renewables Obligation 2015 (as amended)		
ROC	Renewables Obligation Certificate		
ROO	Renewables Obligation Order		
RO(S)	Renewables Obligation Scotland 2009 (as amended)		

S		
SLD	Single line diagram	
SRO	Scottish Renewables Obligation	
SROC	Scottish Renewables Obligation Certificate	
т		
ТІС	Total Installed Capacity	
ТРО	Total Power Output	
U		
UC	Unit Conversion	
UK	United Kingdom	
UR	Utility Regulator in Northern Ireland	

Appendix 2: Definitions of technology and fuelling bands

Appendix summary

Definitions of the individual technology and fuelling based bands that partially determine the number of ROCs that will be issued to a generating station per unit of renewable electrcity produced. Banding is applicable to most but not all stations and is mainly conditional on the date a station was accredited or additional capacity was added.

Advanced gasification

Electricity generated from a gaseous fuel which is produced from waste or biomass by means of gasification, and has a gross calorific value when measured at 25°C and 0.1 megapascals at the inlet to the generating station of at least 4 megajoules per metre cubed.

Advanced pyrolysis

Electricity generated from a liquid or gaseous fuel which is produced from waste or biomass by means of pyrolysis, and (a) in the case of a gaseous fuel, has a gross calorific value when measured at 25°C and 0.1 megapascals at the inlet to the generating station of at least 4 megajoules per metre cubed, and (b) in the case of a liquid fuel, has a gross calorific value when measured at 25°C and 0.1 megapascals at the inlet to the generating station of at least 10 megajoules per kilogram.

Anaerobic Digestion

This is abbreviated to "AD" in the Order and means electricity generated from gas formed by the anaerobic digestion of material which is neither sewage or material in a landfill.

Closed landfill gas

Electricity generated from landfill gas (other than electricity generated using the heat from a turbine or engine) in any month in which the generating station generates electricity only from gas formed by the digestion of material in a landfill which no longer accepts waste for disposal.

Co-firing of regular bioliquid

Electricity generated from regular bioliquid in a month in which the generating station generates electricity partly from fossil fuel and partly from renewable sources.

Co-firing of regular bioliquid with CHP

Electricity generated from regular bioliquid in a month in which the qualifying CHP generating station generates electricity partly from fossil fuel and partly from renewable sources.

Co-firing of relevant energy crops

Electricity generated before 1 April 2019 by a generating station where declared net capacity has not been in excess of 50kW at any time after 31 March 2009; where electricity is generated from relevant energy crops⁴² burned in a combustion unit in a month in which the energy content of the biomass burned in that unit is less than 50% of the energy content of all energy sources burned in that unit in that month; and where electricity is generated partly from fossil fuel and partly from renewable sources.

Co-firing of relevant energy crops (with CHP)

Electricity generated before 1 April 2019 by a generating station where declared net capacity has not been in excess of 50kW at any time after 31 March 2009; where electricity is generated from relevant energy crops burned by a qualifying CHP generating station in a combustion unit in a month in which the energy content of the biomass burned in that unit is less than 50% of the energy content of all energy sources burned in that unit in that month; and where electricity is generated partly from fossil fuel and partly from renewable sources.

Dedicated biomass

Electricity generated from regular biomass by a generating station which is not a relevant fossil fuel generating station and which, in any month, only generates electricity from biomass.

Dedicated biomass with CHP

Electricity generated from regular biomass by a qualifying combined heat and power generating station which is not a relevant fossil fuel generating station, and which, in any month, only generates electricity from biomass.

Dedicated energy crops

Electricity generated from energy crops by a generating station which is not a relevant fossil fuel generating station, and which in any month, generates electricity only from energy crops.

Electricity generated from sewage gas

Electricity generated from gas formed by the anaerobic digestion of sewage (including sewage which has been treated or processed).

⁴² 'Relevant energy crops' are energy crops supplied to the operator of a generating station in accordance with an agreement in writing before 7 September 2012 between the operator of the generating station and a person who is not connected to the operator or generator of the station. See Article 36(6) of the ROO 2015 (as amended), Article 28D(4) of the RO(S) 2009(as amended), and Article 26D(4) of the NIRO (as amended).

Energy from waste with CHP

Electricity generated from the combustion of waste (other than a fuel produced by means of anaerobic digestion, gasification or pyrolysis) in a qualifying combined heat and power generating station in a month in which the station generates electricity only from renewable sources and those renewable sources include waste which is not biomass.

Geothermal

Electricity generated using naturally occurring subterranean heat.

Geopressure

Electricity generated using naturally occurring subterranean pressure.

Hydro-electric

Electricity generated by a hydro generating station;

A "hydro generating station" means a generating station which is wholly or mainly driven by water (other than a generating station driven by tidal flows, waves, ocean currents, geothermal sources or using a difference in tidal levels) and the "generating station" extends to all turbines supplied by the same civil works, except that any turbine driven by a compensation flow supplied by those civil works where there is a statutory obligation to maintain such compensation flow in a natural water course shall be regarded as a separate hydro generating station.

NB The current restrictions on pre-existing hydro above 20MW in capacity will continue to apply in England and Wales.

High-range co-firing

Electricity generated from solid and gaseous biomass or energy crops in a month in which the generating station generates electricity partly from fossil fuel and partly from renewable sources; and where the energy content of the biomass burned in a combustion unit is at least 85% (but is less than 100%) of all the energy sources burned in that unit in that month.

High-range co-firing with CHP

Electricity generated from solid and gaseous biomass or energy crops in a month in which the qualifying CHP generating station generates electricity partly from fossil fuel and partly from renewable sources; and where the energy content of the biomass burned in a combustion unit is at least 85% (but is less than 100%) of all the energy sources burned in that unit in that month; and where the fossil fuel and biomass or energy crops have been burned in separate combustion units.

Landfill gas heat recovery

Electricity generated using the heat from a turbine or engine which is generating electricity from landfill gas.

Low-range co-firing

Electricity generated from solid and gaseous biomass or energy crops in a month in which the generating station generates electricity partly from fossil fuel and partly from renewable sources; and where the energy content of the biomass burned in a combustion unit is less than 50% of all the energy sources burned in that unit in that month.

Low-range co-firing with CHP

Electricity generated from solid and gaseous biomass or energy crops in a month in which the qualifying CHP generating station generates electricity partly from fossil fuel and partly from renewable sources; and where the energy content of the biomass burned in a combustion unit is less than 50% of all the energy sources burned in that unit in that month; and where the fossil fuel and biomass or energy crops have been burned in separate combustion units.

Mid-range co-firing

Electricity generated from solid and gaseous biomass or energy crops in a month in which the generating station generates electricity partly from fossil fuel and partly from renewable sources; and where the energy content of the biomass burned in a combustion unit is at least 50% but less than 85% of all the energy sources burned in that unit in that month.

Mid-range co-firing with CHP

Electricity generated from solid and gaseous biomass or energy crops in a month in which the qualifying CHP generating station generates electricity partly from fossil fuel and partly from renewable sources; and where the energy content of the biomass burned in a combustion unit is at least 50% but less than 85% of all the energy sources burned in that unit in that month; and where the fossil fuel and biomass or energy crops have been burned in separate combustion units.

Offshore Wind

Electricity generated from wind by a generating station that is offshore. Offshore in relation to a generating station which generates electricity from wind, means a generating station which has its wind turbines situated wholly in offshore waters, and is not connected to dry land by means of a permanent structure which provides access to land above the mean low water mark.

Offshore wind – demonstration turbines

Electricity generated from wind by a generating station that is offshore, uses only eligible turbines, and is located on a particular area of seabed which is subject to a demonstration lease issued by the Crown Estate. Eligible turbine in relation to an offshore wind generating station using demonstration turbines, means a wind turbine which does not form part of the generating station from a date no earlier than 1 April 2014. Demonstration lease means a lease granted by the Crown Estate, one of whose purposes is testing, demonstrating and approving the viability of a wind turbine.

This definition applies to RO(S) stations only.

Offshore wind – floating turbines

Electricity generated from wind by a generating station that is offshore, uses only floating wind turbines, is granted preliminary accreditation which takes effect on or before 31 March 2017 and is commissioned before 1 October 2018. Floating wind turbine in relation to an offshore generating station, means a wind turbine which is fixed or connected to the seabed by means of a chain, tension leg or other flexible mooring and not by any other means.

This definition applies to RO(S) stations only.

Onshore Wind

Electricity generated from wind by a generating station that is not offshore (see offshore definition above).

Standard gasification

Electricity generated from a gaseous fuel which is produced from waste or biomass by means of gasification, and has a gross calorific value when measured at 25°C and 0.1 megapascals at the inlet to the generating station which is at least 2 megajoules per metre cubed but is less than 4 megajoules per metre cubed.

Standard pyrolysis

Electricity generated from a gaseous fuel which is produced from waste or biomass by means of pyrolysis, and has a gross calorific value when measured at 25°C and 0.1 megapascals at the inlet to the generating station which is at least 2 megajoules per metre cubed but is less than 4 megajoules per metre cubed.

Station conversion

Electricity generated from regular biomass or energy crops by a RFFGS (relevant fossil fuel generating station). The fuels used for electricity generating in any month must be biomass or energy crops.

Station conversion with CHP

Electricity generated from regular biomass or from energy crops by a relevant fossil fuel CHP generating station. The fuels used for electricity generating in any month must be biomass or energy crops.

Tidal Impoundment – Tidal Barrage

Electricity generated by a generating station driven by the release of water impounded behind a barrier using the difference in tidal levels where the barrier is connected to both banks of a river and the generating station has a declared net capacity of less than 1 GW.

Tidal Impoundment - Tidal Lagoon

Electricity generated by a generating station driven by the release of water impounded behind a barrier using the difference in tidal levels where the barrier is not a tidal barrage and the generating station has a declared net capacity of less than 1 GW.

Tidal Stream

Electricity generated from the capture of the energy created from the motion of naturally occurring tidal currents in water.

Enhanced Tidal Stream

Electricity generated from the capture of the energy created from the motion of naturally occurring tidal currents in water, where such electricity is not generated by devices built with or maintained by capital or revenue funding under a statutory grant programme operated by the Scottish Ministers or the Secretary of State; in respect of which a statutory grant was awarded on or before 19th September 2008.

Wave

Electricity generated from the capture of the energy created from the motion of naturally occurring waves on water.

Enhanced Wave

Electricity generated from the motion of naturally occurring waves on water, where such electricity is not generated by devices built with or maintained by capital or revenue funding under a statutory grant programme operated by the Scottish Ministers or the Secretary of State in respect of which a statutory grant was awarded on or before 19th September 2008.

Solar photovoltaic

Electricity generated from the direct conversion of sunlight into electricity.

Building mounted solar photovoltaic

Electricity generated from the direct conversion of sunlight into electricity by equipment which is installed on a building by equipment not installed on the ground either:

- directly, or
- on a frame, plinth or other structure installed on the ground wholly or mainly for the purpose of supporting that equipment.

For NIRO stations only the above definition applies where the relevant generating station is not a qualifying existing solar photovoltaic station or a qualifying new solar photovoltaic station as defined in Schedule 2.

Ground mounted solar photovoltaic

Electricity generated from the direct conversion of sunlight into electricity by equipment installed on the ground either:

directly, or

• on a frame, plinth or structure installed on the ground, and wholly or mainly for the purpose of supporting that equipment.

For NIRO stations only the above definition applies where the relevant generating station is not a qualifying existing solar photovoltaic station or a qualifying new solar photovoltaic station as defined in Schedule 2.

Unit conversion

Electricity generated from regular biomass or energy crops burned in a combustion unit in any month in which that combustion unit burns only biomass or only energy crops, and the generating station generates electricity partly from fossil fuel and partly from renewable sources.

Unit conversion with CHP

Electricity generated from regular biomass or energy crops burned by a qualifying combined heat and power generating station in a combustion unit in any month in which that combustion unit burns only biomass or only energy crops, and the generating station generates electricity partly from fossil fuel and partly from renewable sources.



Appendix 3: Additional information on accreditation

Table A3.1: Eligibility requirements for accreditation.

Eligibility requirement	Required for accreditation?
Has the generating station commissioned?	Yes
What is the capacity and how has it been calculated?	Yes
Is the generating station in the UK?	Yes
Do the components and equipment used constitute a generating station?	Yes
Is the electricity being supplied to customers in GB and/or NI and is it being used in a permitted way?	Yes
Is the technology type eligible?	Yes
Is there proof of how the electricity is generated and metered?	Yes
Has the station applied for another scheme which makes it ineligible to receive ROCs?	Yes
Has planning consent been granted?	No

Has the generating station commissioned?

Meeting the definition of "commissioned"

A3.1. Generating stations had to have been commissioned in order to be eligible for accreditation. The Orders define "commissioned" as:

"commissioned", 'in relation to a generating station, means the completion of such procedures and tests in relation to that station as constitute, at the time they are undertaken, the usual industry standards and practices for commissioning that type of generating station in order to demonstrate that that generating station is capable of commercial operation.'

Demonstrating that a generating station has been commissioned

A3.2. Applicants must provide us with evidence that shows the generating station has been commissioned. The usual industry standard practices for commissioning will vary depending on the type of renewable technology used. The RO: Essential guide to

commissioning⁴³ provides more information on what is required to demonstrate a generating station has been commissioned.

Commissioning date

- A3.3. We would expect the commissioning date to be the date the standard tests have been completed satisfactorily and the station is capable of commercial operation. Once the commissioning date has been determined, and if it meets the requirements of the scheme, a generating station will be eligible to receive support from the later of:
 - the date the application was received by us, or
 - the date on which it was commissioned.

What is the capacity and how has it been calculated?

Total installed capacity (TIC) and declared net capacity (DNC)

- A3.4. To be eligible for support you must have had declared the total installed capacity (TIC) and declared net capacity (DNC) of the generating station as part of your application for accreditation.
- A3.5. TIC and DNC of a generating station are defined in the Orders as:

"total installed capacity", 'in relation to a generating station means, the maximum capacity at which the station could be operated for a sustained period without causing damage to it (assuming the source of power used by it to generate electricity was available to it without interruption).'

"declared net capacity", 'in relation to a generating station, means the maximum capacity at which the station could be operated for a sustained period without causing damage to it (assuming the source of power used by it to generate electricity was available to it without interruption) less the amount of electricity that is consumed by the plant'.

- A3.6. We consider the capacity rating of the generating equipment to indicate the TIC of the generating station. The capacity of any parasitic loads should be factored into the DNC.
- A3.7. We may request third-party verification during the accreditation process of the TIC and DNC, such as a declaration made by the installer or manufacturer of the generating equipment.

⁴³ See associated documents section.

Location of the generating station

A3.8. Generating stations outside the UK are unable to benefit from ROCs. For the purpose of the Orders, the expression "the United Kingdom" includes the territorial sea of the United Kingdom and waters in any area designated under Section 1(7) of the Continental Shelf Act 1964. This also includes Renewable Energy Zones as defined in the Energy Act. Refer to Table A3.3 for additional criteria for offshore wind stations concerning their location.

Do the components and equipment used constitute a generating station?

A3.9. The purpose of this part of the assessment is to ensure that the boundaries of the station are clear to enable us to issue ROCs, and so we can assess whether the station is a single generating station or not. Table A3.2 lists the factors we consider in determining this.

Definition of a hydro generating station

A3.11 The Orders define a hydro generating station as:

"a generating station driven by water (other than a generating station driven by tidal flows, waves, ocean currents or geothermal sources) and includes all turbines supplied with water by or from the same civil works, except any turbine driven by a compensation flow supplied by or from those civil works in a natural water course where there is a statutory obligation to maintain that compensation flow in that water course (in which case that turbine and associated infrastructure is to be regarded as a separate hydro generating station)".

- A3.12 We interpret the term 'turbines' to also include Archimedes' Screws.
- A3.13 If a hydro generating station consists of more than one turbine supplied by the same civil works, we will need to be satisfied that a particular turbine is driven by a statutory compensation flow. This is so we can determine that the turbine is a separate hydro generating station for the purposes of the RO.

Components of a generating station

- A3.14 We generally consider any equipment which contributes to generating electricity as part of the generating station, even if that equipment has another purpose (such as incinerators, combustors, flare stacks etc.).
- A3.15 We will presume that sets of equipment for generating electricity are ordinarily one generating station if they are on the same premises and where they are owned and or operated by the same or connected or associated or related people, which are defined as:
 - "connected" 50% or more of the ordinary share capital of one generating station is owned directly or indirectly by the other or 50% or more of the ordinary share capital of each is owned directly or indirectly by a third body corporate
 - "associated" one is a subsidiary of the other or both are subsidiaries of the same holding company
 - "related" one is a 75% subsidiary of the other or both are 75% subsidiaries of a third body corporate, and
 - "holding company" and "subsidiary" as defined in Section 1159 of the Companies Act 2006 and Section 1122 of the Corporation Tax Act 2010 as appropriate.
- A3.16 If several sets of equipment for generating electricity are grouped together to form multiple generating stations in a way which would ordinarily be seen as one generating station, then the generator will need to explain how these sets of equipment for generating electricity can be seen as more than one generating station.
- A3.17 If sets of equipment for generating electricity are operated by contractors, we will view the generators of two (or more) such sets on the same premises as sufficiently closely linked for the premises to be considered as one generating station if one is acting as the other's contractor or if both are acting as the contractor for the same third party.

Single line diagram

A3.18 A single line diagram was required as part of the application for RO accreditation. This diagram should show any generators (including standby generators), meters, interconnectors and the grid connection point. We compare this against the information in your application to ensure consistency.

Factors to determine a generating station	Further information
What constitutes the premises?	This might be a house or building with its grounds, or it might be an area of Crown Estate land if the generating station is an offshore wind farm.
Is there a shared electrical or mechanical connection?	Is this between any or all of the sets of equipment for generating electricity or any other equipment, apparatus or plant?
Is there common steam linkage?	Is this between any or all of the sets of equipment, apparatus or plant?
Is the same fuel used by different equipment?	Is the same fuel (or fuels in the case of co-firing) used by any or all of the sets of equipment for generating electricity and are they related functionally?
Are there multiple renewable sources on site?	For non-fuelled stations, is the electricity generated from the same renewable source or is there more than one way of generating electricity at the site in question? For example, a mix of solar PV and onshore wind.
Is the same driver used?	Is the same driver used by any or all of the sets of equipment for generating electricity and are they related functionally?
How is planning permission governing the equipment?	Is the same planning permission and / or Section 36 consent governing the sets of equipment for generating electricity?
Is there one connection to the transmission or distribution network?	Is the same export connection to the grid used for all equipment on site or are there separate connections to the transmission or distribution network?
Is there the same or linked metering for the sets of equipment for generating electricity?	We will require there to be separate metering for separate generating stations. Although separate metering is a prerequisite for separate generating stations, it is not sufficient in itself for the sets of equipment for generating electricity to be treated as separate generating stations.
How the metering is registered under the Balancing and Settlement code?	We would expect a generating station to be separately registered under the Balancing and Settlement Code. If this is not the case we will request additional evidence to show that it is a separate generating station.

Table A3.1: Factors to determine what constitutes a generating station

Factors to determine a generating station	Further information	
Has the station previously been accredited?	In a scenario where a previously accredited generating station is or was located on the same site which is the subject of an application for accreditation, we would consider whether the subject of the new application is the same generating station to which it is or was previously accredited.	
Is the generated electricity within the CHPQA scheme boundary?	 previously accredited. The combined heat and power (CHP) uplift can only be issued on electricity generated by equipment that is within the CHPQA scheme boundary. The operator will need to provide to us: A copy of the latest CHPQA certificate as referenced in the application for accreditation A description of the generating equipment that is part of the CHPQA scheme as certified The TIC of the generating equipment that is part of the CHPQA scheme as certified A description of any generating equipment that is part of the CHPQA scheme as certified A description of any generating equipment that is part of the generating station as described in the RO accreditation application that is not part of the certified CHPQA scheme The TIC of the generating equipment that is part of the generating station as described in the accreditation application but that is not part of the certified CHPQA scheme. In most cases it is expected that the generating equipment included within the CHPQA scheme boundary will constitute all of the generating equipment described in the station's application for accreditation. Where it is the case that some generating equipment is included in the station's application for accreditation is not within the CHPQA scheme boundary, the CHP uplift cannot be claimed on any electricity generated by such equipment. In these circumstances it may be necessary for stations to submit separate accreditation applications for the generating equipment inside the CHPQA scheme boundary and that outside the CHPQA boundary in order to ensure that the CHP uplift can be awarded correctly. 	
Is there more than one contractor operating different sets of equipment on the same premises?	 If so, and: is one acting as the others contractor, or are both are acting as the contractor for the same third party; if so, this will be considered to be one generating station. 	
What equipment (when handling and preparing	A generating station can include several sets of equipment for handling and preparing fuel, for example:	

Factors to determine a generating station	Further information	
fuel) is considered part of the generating station?	 Sewage gas stations: any pumps or fans used to transport sewage gas to the sets of equipment for generating electricity. Biomass stations: the use of conveyor belts to deliver a biomass fuel to the sets of equipment for generating electricity. 	
What equipment (when handling and preparing fuel) is NOT considered part of the generating station?	 Any sets of equipment used for handling or preparing a material or substance before it is converted into the final fuel used in the station would NOT be considered part of the generating station. For example: AD generating stations: any digesters used to treat the feedstocks and produce the biogas that fuels the station. Gasification plant: equipment used for handling or preparing feedstocks before these are converted into syngas. 	

Eligibility of technology used

A3.28 To be eligible for the RO the station must fall under one of the technology types shown in the tables in this appendix. Table A3.3 sets out some additional eligibility criteria for specific technology types. For more information on the definitions and criteria which affect ROC issue to fuelled generating stations, please refer to our 'RO: Fuel Measurement and Sampling guidance'. Please note that there were early closures for specific technologies, further details of which are available in Table A3.4.

Table A2.3: Eligibility criteria for specific technology types

Technology type	Eligibility criteria	Evidence required
Solar PV with a DNC <50kW in Northern Ireland	The plant or apparatus used at the generating station must meet the requirements of the Microgeneration Certification Scheme (MCS) or equivalent.	MCS certificate from the generator.
Onshore wind with a DNC <50kW in Northern Ireland	The plant or apparatus used at the generating station must meet the requirements of the MCS or equivalent.	MCS certificate from the generator.

Technology type	Eligibility criteria	Evidence required
Offshore wind - demonstration turbine in Scotland	Electricity must be generated by an offshore wind station that uses only eligible wind turbines as defined in Article 30C of the RO(S) Order.	A written declaration from the generator confirming that the station uses only 'eligible turbines' based on the definition of 'demonstration turbine'.
Offshore wind - floating turbine in Scotland	Electricity must be generated by an offshore wind station that uses only floating wind turbines as defined in Article 30D of the RO(S) Order. In order to accredit after 1 April 2017, the station must have preliminary accreditation that takes effect on or before 31 March 2017 and the station must have been commissioned before 1 October 2018.	 A written declaration from the generator confirming that the electricity generated was generated by a generating station using only floating wind turbines based on the definition of 'floating turbine', and that the generating station is covered by a demonstration lease. The minimum evidence required to prove you meet this definition is: A marine licence by Marine Scotland. A full description of the generating equipment to be installed from the turbine manufacturer.
Offshore wind generating stations	Offshore generating stations may be excluded based on their location and the nature of their connections to the transmission or distribution networks.	Under the RO and RO(S) Orders, only the following generating stations are able to claim ROCs and apply for accreditation under the scheme: • offshore generating stations located within the territorial waters of the United Kingdom or waters in any area designated under Section 1(7) of the Continental Shelf Act 1964, and • offshore generating stations, located outside of the United Kingdom, but that are directly and exclusively connected to a transmission or distribution network located in Northern Ireland.

Technology type	Eligibility criteria	Evidence required
		 Offshore generating stations must: be directly connected to a transmission or distribution network in Great Britain and need to provide evidence of this when applying for the RO, or, be directly and exclusively connected to a transmission or distribution network in Northern Ireland and need to provide evidence of this when applying for the RO.
Landfill gas	Some landfill gas stations may still be eligible for support under two new bands - 'closed landfill' gas and 'landfill gas heat recovery'.	The definitions that a generator would need to meet to be eligible for support under these bands and the appropriate level of support are set out in this Appendix.
Biomass generating stations in Scotland with a (TIC) >15MW	No SROCs are to be issued to a generating station which commissioned on or after 1 April 2014 and has a TIC greater than 15 MW generated from 'relevant biomass' unless the generating station was accredited under CHPQA when it first commissioned and is accredited during the relevant month. In addition, should there have been a period where the station was without CHPQA accreditation this cannot have been for part or all of 5 obligation years or more.	Upon application for accreditation we may request evidence of the TIC, see "What is the capacity and how has it been calculated?" section above for information on what evidence we would require. The CHPQA ROCs Eligibility Certificate should also be provided as evidence of being a qualifying combined heat and power ⁴⁴ generating station.

⁴⁴ Combined Heat and Power (CHP) is a process that captures and utilises the heat that is a by-product of the electricity generation process.
Technology type	Eligibility criteria	Evidence required
	Relevant biomass is defined as biomass "which is composed wholly or partly from wood which is not an energy crop".	
Combined Heat and Power (CHP) generating stations and CHP uplift	To claim the CHP uplift, you will need a ROCs Eligibility Certificate under the CHP Quality Assurance (CHPQA) programme. ⁴⁵ In the first year the station will be issued the CHP uplift based on the latest of the following dates: • The date that the CHPQA ROCs Eligibility Certificate was issued. • The date the CHP scheme commissioned. • The date RO accreditation is effective from.	A CHPQA certificate should be provided upon application to become a qualifying CHP station. Annual renewal information is provided to us by CHPQA. This certificate must be renewed annually. We will then apply the details from the renewed certificate to the new obligation year (1 April to 31 March). Where there is no renewed CHPQA ROCs Eligibility Certificate we will seek to ensure that ROCs issued in the January to March period do not benefit from the CHP uplift as the generating station would not meet the definition of a Qualifying CHP generating station. Please note that Renewable Heat Incentive ⁴⁶ (RHI) eligibility criteria also had to be met; please refer to Section A3.35 for more information.

Table A3.4: Early closures of the RO

Technology type	Country	Closure date
<u>Solar PV with</u> <u>TIC >5MW</u>	England, Scotland and Wales	31 March 2015 Grace periods closed 31 March 2016

⁴⁵ CHPQA programme is managed by Ricardo-AEA technology on behalf of BEIS. For more information please refer to guidance note 44 available from the CHPQA website: <u>https://www.gov.uk/combined-heat-</u> power-quality-assurance-programme ⁴⁶ The RHI is a government financial incentive to promote the use of renewable heat, administered by

Ofgem.

Technology type	Country	Closure date
<u>Solar PV with</u> <u>TIC ≤5MW</u>	England, Scotland and Wales	31 March 2016 Grace periods closed 31 March 2017
Onshore wind <u>>5MW</u>	Northern Ireland	31 March 2016 Grace periods closed 31 December 2018
Onshore wind	England, Scotland, Wales	12 May 2016 Grace periods closed 31 January 2019
<u>Onshore wind</u> <u>≤5MW</u>	Northern Ireland	30 June 2016 Grace periods closed 31 March 2019
<u>NI non-wind</u> technologies	Northern Ireland	31 March 2017 Grace period closed 31 March 2018

Eligibility of stations which have applied for another scheme

Support under the Contracts for Difference (CfD)

- A3.29 Until the RO closed entirely to new capacity, including capacity eligible for a grace period (available up to 31 March 2019), eligible generating stations had a one-off choice as to whether they apply for the RO or the CfD scheme, which opened in October 2014. This 'transition period' only applied to stations in England, Scotland and Wales.
- A3.30 A station that applied for CfD has exercised its 'choice of scheme' and will not be eligible to apply for accreditation under the RO. We work closely with National Grid to check that the same applicants are not applying for both schemes.
- A3.31 In certain circumstances a station could receive support under both schemes as a dual scheme facility: a station with some capacity under the RO and some under the CfD. Please see Appendix 5 for further information.

Support under Feed-in Tariffs (FIT)

- A3.32 Wind, PV, AD and hydro generating stations >50kW DNC and ≤5MW TIC located in England, Scotland and Wales had a one-off choice to receive support under either the RO or FIT schemes. This choice must have been declared as part of your application for full accreditation (through the ROO-FIT accreditation process).⁴⁷ Once your generating station has received full accreditation under the chosen scheme, it is not possible to switch to the other scheme.
- A3.33 Wind, PV, AD and hydro generating stations ≤50kW were only eligible for the FIT scheme and not the RO.

Extending capacity >5MW

A3.34 If an accredited FIT installation is extended above 5MW, the station would no longer be eligible for FIT and an application could have been made to the RO prior to closure. Please refer to our guidance on Feed-in Tariffs for further information regarding FITs.⁴⁸

Support under Renewable Heat Incentive (RHI) for CHP stations

A3.35 Operators of CHP generating stations may only claim support for their heat use under the RO in certain circumstances, see Table A3.5:

Capacity type	Interaction with RHI
Pre-2013 capacity	Operators of a generating station with a CHPQA certificate and who became a qualifying CHP station before [commencement day] do not need to make a declaration under the RO and can opt to claim the CHP uplift subject to meeting the eligibility criteria. Operators of a generating station with a CHPQA certificate and who became a qualifying CHP station for the first time on or after [commencement day] must make a declaration under the RO if they wish to claim the CHP uplift. This declares they have not sought, and will not seek support for their heat under RHI. For stations in Northern Ireland this applies to accreditations or additional capacity added before 1 May 2013.

Table A3.5: RO CHP uplift and RHI

⁴⁷ As of the 31 March 2019, the ROO-FIT scheme is now closed to new applicants. For more information regarding ROO-FIT grace periods, please visit the ROO-FIT: Large Installations section of our website. The address for this is: <u>https://www.ofgem.gov.uk/environmental-programmes/fit/applicants/roo-fit-large-installations</u>

⁴⁸ <u>https://www.ofgem.gov.uk/environmental-programmes/fit/contacts-guidance-and-resources</u>

Capacity type	Interaction with RHI
2013-15 capacity	Operators of a generating station with a CHPQA certificate must make a declaration under the RO if they wish to claim the CHP uplift. This declares they have not sought, and will not seek support for their heat under RHI. For stations in Northern Ireland this applies to accreditations or additional capacity added between or 1 May 2013 and 31 March 2015.
2015-16 capacity	Operators of a generating station with a CHPQA certificate can only claim the CHP uplift if their technology/fuel is not eligible under RHI scheme. To do this they must make a declaration under the RO specifying that they cannot get support under RHI. For stations in Northern Ireland this applies from 1 October 2015 – 31 March 2016 only. For the period 1 April 2015 – 30 September 2015 the operator still has a choice and if they wish to claim the uplift would do so with a declaration such as that set out for 2013-15 capacity.
Post-2016 capacity	Operators of a generating station with a CHPQA certificate can only claim the CHP uplift if their technology/fuel is not eligible under RHI scheme. To do this they must make a declaration under the RO specifying that they cannot get support under RHI.

A3.36 A template for each declaration can be requested from Ofgem by emailing <u>renewable.outputdata@ofgem.gov.uk</u> Once a generating station has opted for the RO CHP support and made the relevant declaration for a particular capacity this choice cannot be withdrawn. For further information on the eligibility requirements for the RHI, please refer to our website: <u>www.ofgem.gov.uk/rhi</u>.

Appendix 4: Banding and Grandfathering

Appendix summary

Explains the technology and capacity dependent bands that determine the level at which ROCs are issued. It also explains the conditions that influence when these bands apply and exceptions to those rules. The section covers the period 1 April 2009 to 31 March 2017 (and capacity eligible for a grace period up to 31 March 2019).

Banding reviews

To ensure that the level of support remains appropriate the government regularly reviewed the banding structure. The latest of banding changes came into force on 1 April 2013 (or 1 May 2013 under the NIRO).

The banding structure outlined within this chapter is intended to cover the period 2009-17.

In addition to the planned reviews the primary legislation provides for emergency reviews to be carried out in the following circumstances:

- significant change in the cost regime for grid connection or transmission,
- new renewable generating technology emerges with a potential to deploy on a large scale,
- changes to other support schemes which will have a significant impact on the generation of electricity from renewable sources,
- evidence of significant and sustained variation in net costs or reviews (for one or more technologies) changing the economic case from that assumed in the setting of banding levels,
- the co-firing cap creates significant distortions in the ROC market,
- over compliance, and
- any unforeseen event which could have a significant effect on the operation of the Renewables Obligation.

It will be for the Secretary of State or relevant Devolved Authority Ministers to determine what is significant in the context of these powers.

Banding (technology, fuelling and location dependent banding levels)

In 2010, the FIT scheme was introduced in Great Britain. As a result, hydro, PV, wind and AD microgenerating stations (those with DNC of 50kW or less) were excluded from being supported under the RO.⁴⁹

Since a FIT scheme was not introduced in Northern Ireland, to ensure that the development of renewables was not undermined as a result, in 2010 and 2011 the Northern Ireland administration introduced additional support under the RO for generating stations of specified capacity using certain technologies.⁵⁰

Table A4.1 shows the banding related to the RO (in England and Wales) and the RO(S) (in Scotland). Table A4.2 shows the banding levels under NIRO (in Northern Ireland). Table A4.3 shows the banding level applicable for RO, RO(S) and NIRO stations generating electricity using regular biomass.

The tables list the banding level that applies to stations accredited and capacity added to accredited generating stations during each specific time period. For the definitions of each type of generating capacity please refer to Appendix 2.

The tables reflect the current tables in Schedule 2 of the Orders but have been adapted for ease of reference. This includes presenting the level of support as a number of ROCs per MWh of eligible electricity produced rather than MWhs of electricity to be stated in each ROC. The tables also contain footnotes that point to Articles of the Orders that make alterations to the banding levels set out in the tables.

For stations with more than one combustion unit that use regular biomass on or after 1 April 2013 (or 1 May 2013 under the NIRO), banding is determined on a unit by unit basis rather than a station-wide basis. See the RO: Fuel Measurement and Sampling Guidance⁵¹ for further information.

Please note that there is no separate band for stations that meet the 'station conversion' band definition and that use bioliquid fuels; they are supported under the 'station conversion' band.

There are some exceptions to the RO banding levels set out in Tables A4.1 and A4.3 that will apply to certain generating stations. Please refer to the section on 'Exceptions to banding and grandfathering' for further information.

⁴⁹ Article 51 of the ROO 2015 (as amended).

⁵⁰ Article 27A to D and 29 A and B of the NIRO 2009 (as amended).

⁵¹ See associated documents section.

Table A3.1: RO and RO(S) banding (excluding regular biomass* bands)

Band	pre-13 capacity	13/14 capacity	14/15 capacity	15/16 capacity	Post-2016 capacity
Advanced gasification/pyrolysis	2	2	2	1.9	1.8
AD	2	2	2	1.9	1.8
Energy from waste with CHP	1	1	1	1	1
Geothermal	2	2	2	1.9	1.8
Geopressure	1	1	1	1	1
Hydro	1	0.7 (1RO(S))	0.7 (1RO(S))	0.7 (1RO(S))	0.7(1RO(S)
Landfill gas ⁵²	0.25**	0	0	0	0
Landfill gas – closed landfill gas	New band	0.2	0.2	0.2	0.2
Landfill gas heat recovery	New band	0.1	0.1	0.1	0.1
Microgeneration (≤50kW DNC) ⁵³	2	2	2	1.9	1.8
Onshore wind	1	0.9	0.9	0.9	0.9
Offshore wind	2***	2	2	1.9	1.8
Offshore wind – demonstration turbines (RO(S))	New band	New band	2.5	2.5	2.5
Offshore wind – floating turbines (RO(S))	New band	New band	3.5	3.5	3.5
Other	1	1	1	1	1
Sewage gas	0.5**	0.5	0.5	0.5	0.5
Solar PV	2	Retired band, see new bands below			
Solar PV (building mounted)	New band	1.7	1.6	1.5	1.4
Solar PV (ground mounted)	New band	1.6	1.4	1.3	1.2
Standard gasification/pyrolysis	1	2	2	1.9	1.8
Tidal barrage (<1GW DNC)	2	2	2	1.9	1.8
Tidal lagoon (<1GW DNC)	2	2	2	1.9	1.8

⁵² Article 57 of the ROO 2015 (as amended), and Article 24 of the RO(S) 2009 (as amended) state that no ROCs are to be issued in respect of post-2013 capacity for landfill gas unless the electricity is generated using pre-2013 capacity, closed landfill gas or landfill gas heat recovery.

⁵³ Article 34 of the ROO 2015 (as amended), and Article 29 of the RO(S) 2009 (as amended) apply. Article 2(1) of the RO(S) 2009 (as amended) excludes enhanced wave and tidal stream generating stations from the definition of 'microgenerator' from 1 April 2013.

Band	pre-13 capacity	13/14 capacity	14/15 capacity	15/16 capacity	Post-2016 capacity
Tidal stream ⁵⁴	2	2	2	2	2
Wave	2	2	2	2	2
Tidal stream - enhanced (RO(S))	3	3	3	3	3
Wave - enhanced (RO(S))	5	5	5	5	5

* Regular biomass is defined as biomass other than (a) sewage gas, (b) landfill gas, (c) energy crops, (d) fuel produced by means of anaerobic digestion, (e) advanced fuel.

** Some of these stations may be eligible to receive 1 ROC/MWh (Article 30 and 31 of the ROO 2015 (as amended). See 'Exceptions to banding and grandfathering' on page 100 for further information.

*** Offshore wind generating stations granted full accreditation or that have additional capacity recognised in the period 12/07/2006 to 31/03/10 are awarded 1.5 ROCs/MWh (Article 39 ROO 2015 (as amended), Article 30A RO(S) (as amended).

Table A4.2: NIRO banding and DNC limits (excluding regular biomass bands)

Band		Pre-2013	capacity		14/15 capacity ⁵⁶	15/16 capacity	Post- 2016 capacity
		2009 banding	2010 & 2011 changes ⁵⁷	13/14 capacity ⁵⁵			
Advanced gasification/py	rolysis	2	2	2	2	1.9	1.8
	\leq 500kW	2	4	4	4	4	4
Anaerobic digestion ^[1]	>500kW- 5MW	2	3	3	3	3	3
	>5MW	2	2	2	2	1.9	1.8
Energy from wa	aste with CHP	1	1	1	1	1	1
Geothermal		2	2	2	2	1.9	1.8
Geopressure	Geopressure		1	1	1	1	1
Hydro ^[2]	≤20kW	1	4	4	4	4	4
	>20kW- 250kW	1	3	3	3	3	3

 $^{^{54}}$ Under Article 40 of the ROO 2015 (as amended) `2012/17 marine capacity' up to 30MW TIC receives 5 ROCs/MWh.

 $^{^{55}}$ AD, hydro, PV and onshore wind <5MW based on Articles 27 to 27D and 29A and B of the ROO 2015 (as amended).

 $^{^{56}}$ AD, hydro, PV and onshore wind <5MW based on Articles 27 to 27D and 29A and B of the ROO 2015 (as amended).

 $^{^{57}}$ Article 27 to 27D and 29A and B of the ROO 2015 (as amended).

Renewables Obligation (RO)

Band		Pre-2013	capacity				
		2009 banding	2010 & 2011 changes ⁵⁷	13/14 capacity ⁵⁵	14/15 capacity ⁵⁶	15/16 capacity	Post- 2016 capacity
	>250kW- 1MW	1	2	2	2	2	2
	>1MW - 5MW	1	1	1	1	1	1
	>5MW	1	1	0.7	0.7	0.7	0.7
Landfill gas ⁵⁸		0.25*	1	1	1	0	0
Landfill gas – c	losed landfill	New band				0.2	0.2
Landfill gas hea	at recovery	New band				0.1	0.1
Microgeneratio DNC) ⁵⁹	n (<50kW	2	2	2	2	1.9	1.8
	≤250kW	1	4	4	4	4	4
Onshore wind ^[2]	>250kW- 5MW	1	1	1	1	1	1
	>5MW	1	1	0.9	0.9	0.9	0.9
Offshore wind		2**	2	2	2	1.9	1.8
Sewage gas		0.5*	0.5	0.5	0.5	0.5	0.5
Solar PV ^[3] BM =	≤50kW	2	4	4	4	4, then 3 from 1 Oct 2015.	3, then 2 from 1 Oct 2016.
building mounted solar PV GM = ground	>50kW- 250kW	2	2	2	2	2	2
mounted solar PV	>250kW		2	1.7 BM	1.6 BM	1.5 BM	1.4 BM
	2250RW	2	2	1.6 GM	1.6 GM	1.5 GM	1.4 GM
Standard gasification/pyrolysis		1	1	2	2	1.9	1.8
Tidal barrage (<1GW DNC)		2	2	2	2	1.9	1.8
Tidal lagoon (<	IGW DNC)	2	2	2	2	1.9	1.8
Tidal stream ⁶⁰		2	2	2	2	2	2
Wave ⁶¹		2	2	2	2	2	2

⁵⁸ Article 22 of the NIRO 2009 (as amended) states that no ROCs are to be issued in respect of post-2013 capacity for landfill gas unless the electricity is generated using pre-2013 capacity or 2013/15 capacity, closed landfill gas or landfill gas heat recovery.

⁵⁹ Article 27 of the NIRO 2009 (as amended) applies.

⁶⁰ Under Article 40 of the ROO 2015 (as amended). 2012/17 marine capacity up to 30MW TIC receives 5 ROCs/MWh.

 $^{^{61}}$ Under Article 40 of the ROO 2015 (as amended), 2012/17 marine capacity up to 30MW TIC receives 5 ROCs/MWh.

[1] Applies to generating stations that were first accredited on or after 1 April 2011. If the station, at any time after 26 April 2010, had a DNC above the specified maximum it would not qualify for the band⁶² and standard banding rules apply.

[2] & [3] applies to:

a) Generating stations that were first accredited after 31 March 2010. If the station, at any time after that date, had a DNC above the stated maximum, it does not qualify for the band and standard banding rules apply; and

b) Stations that were accredited as of 31 March 2010, that add capacity after this date, can claim the enhanced level of NIROCs in respect of generation by the additional capacity only. Generation by the original capacity (the capacity of the station as of 31 March 2010) will continue to realise NIROCs at the relevant band that applied when the station was accredited. If the station, at any time after 31 March 2010, had a DNC above the stated maximum, it does not qualify for the band.⁶³

* Some of these stations may be eligible to receive 1 ROC/MWh (Article 30 and 31 of ROO 2015 (as amended)). See 'Exceptions to banding and grandfathering' on page 100 for further information.

** Offshore wind generating stations granted full accreditation or that have additional capacity recognised in the period 12/07/2006 to 31/03/10 are awarded 1.5 ROCs/MWh (Article 39 of ROO 2015 (as amended)), Article 30A of RO(S) 2009 (as amended).

Table A4.3: RO, RO(S) and NIRO banding for stations using regular biomass* (note - for post 31 March 2013 (or post 30 April 2013 under the NIRO) generation, banding for multi-unit stations is determined on a unit by unit rather than station-wide basis)

Band	pre- 2013 capacity	13/14 capacity	14/15 capacity	15/16 capacity	post- 2016 capacity
Conversion (station or unit)	1	1	1	1	1
Conversion with CHP (station or unit)	1.5	1.5	1.5	1.5	1.5
Co-firing of biomass	No ROCs is	sued under t	his band for	post 31 Marc	h 2013
Co-firing (low range) $^{+}$	0.5	0.5	0.5	0.5	0.5
Co-firing (mid-range)	0.6	0.6	0.6	0.6	0.6
Co-firing (high-range) †	0.9	0.9	0.9	0.9	0.9
Co-firing (low range) with CHP^{\dagger}	1	1	1	1***	1***
Co-firing (mid-range) with CHP	1.1	1.1	1.1	1.1***	1.1***
Co-firing (high-range) with CHP^{\dagger}	1.4	1.4	1.4	1.4***	1.4***
Co-firing of biomass with CHP	No ROCs is	sued under t	his band for	post 31 Marc	h 2013

⁶² Article 27C of NIRO.2009 (as amended).

⁶³ Articles 27 to 27B, 29A and 29B of NIRO 2009 (as amended).

Renewables Obligation (RO)

Band	pre- 2013 capacity	13/14 capacity	14/15 capacity	15/16 capacity	post- 2016 capacity
Co-firing of energy crops	No ROCs is	sued under t	his band for	post 31 Marc	h 2013
Co-firing of energy crops with CHP	No ROCs is	sued under t	his band for	post 31 Marc	h 2013
Co-firing of regular bioliquid [†]	0.5	0.5	0.5	0.5	0.5
Co-firing of regular bioliquid with CHP^{\dagger}	1	1	1	1	1
Co-firing of relevant energy crops (low-range) ⁶⁴	See footnote				
Co-firing of relevant energy crops with CHP (low-range) ⁶⁵	See footnote				
Dedicated biomass**	1.5	1.5	1.5	1.5	1.4
Dedicated biomass with CHP**	2	2	2	1.9	1.8
Dedicated energy crops**	2	2	2	1.9	1.8

⁺**Note**: For some co-firing generating stations, the banding rates differed from those set out in this table for generation prior to April 2015. Please refer to the ROO 2009 (as amended).

*Regular biomass is defined as biomass other than (a) sewage gas, (b) landfill gas, (c) energy crops, (d) fuel produced by means of anaerobic digestion, (e) advanced fuel.

**Generating stations meeting the definition of a relevant fossil fuel generating stations are not eligible to claim under these bands for any post 31 March 2013 (post 30 April 2013 under the NIRO) generation.⁶⁶

*** These support levels are only available in circumstances where support under the RHI is not available. See Article 35 of the ROO (as amended), Article 28 of the RO(S) (as amended) and Article 26 of the NIRO (as amended).

Exceptions to banding and grandfathering

Grandfathering

Grandfathering is the policy intent of maintaining the same level of support as was available at the point of accreditation (for additional capacity, when this was added to an accredited station)

⁶⁴ Under Article 36 of the ROO 2015 (as amended) and Article 28D of the RO(S) 2009 (as amended), 1 April 13 – 31 March 15 generation receives 0.8 ROCs/MWh and 1 April 15 – 31 March 19 generation receives 1 ROC/MWh.

 $^{^{65}}$ Under Article 36 of the ROO 2015 (as amended) and Article 28E of the RO(S) 2009 (as amended), 1 April 13 – 31 March 15 generation receives 1.3 ROCs/MWh and 1 April 15 – 31 March 19 receives 1.5 ROC/MWh.

⁶⁶ Refer to Schedule 2 of the ROO 2015 (as amended) for the definition of the bands.

for the whole duration of its support under the RO. Part 6 of the Orders provides further information.

Subject to a number of exceptions the following grandfathering provisions apply:

- Landfill gas, sewage gas, offshore wind, wave and PV generating stations (TIC) accredited on or before 11 July 2006 (the date of the publication of the Energy Review Report) receive 1 ROC/MWh.
- Generating stations (TIC) accredited on or before 31 March 2009 and which, after the introduction of banding, would have been banded up, were moved to the appropriate higher band on 1 April 2009. This is with the exception of offshore wind, wave and PV stations.
- Landfill gas and sewage gas generating stations (TIC) accredited between 12 July 2006 and 31 March 2009 inclusive, receive 1 ROC/MWh.
- Landfill gas and sewage gas generating stations (TIC) which were granted preliminary accreditation on or before 31 March 2009 and which were commissioned before 1 April 2011, receive 1 ROC/MWh.
- Additional capacity added between 12 July 2006 and 31 March 2011 to landfill and sewage gas generating stations that were accredited as of 11 July 2006 receives 1 ROC/MWh.
- Additional capacity added between 12 July 2006 and 31 March 2011 to landfill and sewage gas stations which were accredited on or before 31 March 2009 receives 1 ROC/MWh.
- Landfill and sewage gas generating stations which were granted preliminary accreditation on or before 31 March 2009 and commissioned on or before 31 March 2011 and subsequently added additional capacity on or before 31 March 2011, receive 1 ROC/MWh on electricity generated using both the original accredited capacity as well as the additional capacity added on or before 31 March 2011.

Exceptions to the grandfathering rules

Government policy states that certain types of station are not accommodated by grandfathering. BEIS's predecessor, DECC's consultation response document on the banding review⁶⁷ contains a chapter setting out the government policy intent for grandfathering; please refer to this document for further details.

In December 2015 the government announced the decision to remove grandfathering rights for small-scale solar PV capacity accredited in England and Wales after 22 July 2015. They also announced the decision to provide an exception to that removal for projects that met specified criteria for demonstrating that they had made a significant financial commitment on or before 22 July 2015. Please refer to the government response to the consultation on changes to financial support for solar PV⁶⁸ for more information.

The government has consulted on proposals for reduced support for small-scale solar PV in England and Wales with an accreditation date from 23 July 2015 onwards, unless they are eligible for the exception to the removal of grandfathering. Please refer to the consultation on the level of banded support for new solar PV under the RO⁶⁹ for more information. The Government response to that consultation has been published on the same web page., and we contacted affected generators when the change in support came into force.

Generating stations that received a statutory grant made prior to 11 July 2006⁷⁰

Stations that received such a grant that are accredited after 11 July 2006 must have surrendered or paid back the grant prior to 31 March 2011 in order to benefit from banded ROCs. If the grant was not surrendered the station receives 1 ROC/MWh or the relevant banding whichever is less.

BEIS are responsible for informing us of any generating stations in receipt of a grant before 11 July 2006 and also for informing us of when this grant has been repaid in full.

Registered grace period stations

Stations that for reasons related to delays in grid connection or radar solution deployment were unable to commission prior to 1 April 2013 (or 1 May 2013 under the NIRO) had the option to register as a grace period generating station. Stations registered as grace period generating

⁶⁸ <u>https://www.gov.uk/government/consultations/changes-to-financial-support-for-solar-pv</u>
 ⁶⁹ <u>https://www.gov.uk/government/consultations/consultation-on-the-level-of-banded-support-for-new-</u>

⁶⁷ <u>https://www.gov.uk/government/consultations/supporting-large-scale-renewable-electricity-generation</u>

solar-pv-under-the-renewables-obligation ⁷⁰ Article 41 of the ROO 2015 (as amended) Article 32 of the RO(S) 2009 (as amended) and Article 31 of

⁷⁰ Article 41 of the ROO 2015 (as amended), Article 32 of the RO(S) 2009 (as amended) and Article 31 of the NIRO 2009 (as amended).

stations are supported at the ROC level that was available prior to 1 April 2013 (or 1 May 2013 under the NIRO).

Appendix 5: Biomass conversions, dual scheme facilities (DSF) and RO-CfD phased projects

- A5.1 CfDs are adminstered by the Low Carbon Contracts Company (LCCC). There are three circumstances in which a generating station can gain support from both the RO and CfD or Capacity Market (CM) at the same time:
 - An RO-accredited biomass co-firing station, for which ROCs under the 'conversion' bands have never been claimed, could convert units to biomass under CfD, or can convert units to claim support under the CM by withdrawing those units from the RO. Stations with units under the RO and with 'biomass conversion' units under CfD are called a DSF.⁷¹ In November 2020, the Government confirmed its intention to exclude biomass conversions from future allocation rounds under the CfD, therefore we do not expect any further Dual Scheme Facilities (DSF) in this respect.
 - Operators of RO-accredited generating stations who add additional capacity ≥5MW under the CfD scheme can become a DSF.
 - An RO offshore wind generating station where unregistered phases are added under CfD would become an RO-CfD phased project.
- A5.2 There is a further circumstance where you can withdraw your RO accreditation and gain support from elswehere:
 - An entire RO-accredited biomass co-firing station can be converted to the CM, meaning support under the RO would stop and the station would be supported entirely by the CM scheme.

Biomass co-firing stations transferring into the CM

- A5.8 Operators in England and Wales who wish to transfer a unit or their entire generating station to CM will need to send Ofgem a written CM transfer notice⁷² which:
 - identifies:
 - \circ $\;$ the station to which the notice relates, or

⁷¹<u>https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/93</u> 7634/cfd-proposed-amendments-scheme-2020-ar4-government-response.pdf

⁷² Article 48(2) of the RO Order 2015 (as amended).

- the Capacity Market Unit (CMU)⁷³ to which the notice relates, and includes a diagram that shows the RO and CM equipment, and
- states the date on which the capacity agreement was issued, and
- states the date of commencement of the delivery year, or first delivery year, for which that capacity agreement was issued (the capacity market participation date).
- A5.9 A CM transfer notice comes into force on the capacity market participation date, unless the capacity agreement has been terminated before the earliest of either: the participation date or 1 April 2017.
- A5.10 The notice should be submitted to Ofgem as soon as possible after the CM agreement has been issued.
- A5.11 Before the capacity market participation date, the RO-accredited capacity in question may continue to claim ROCs. However, from 1 January 2016 if a station has been issued with a capacity agreement, but we have not received the transfer notice then we will not be able to issue ROCs.⁷⁴ We will only be able to issue these ROCs once we have received the transfer notice. We therefore encourage operators to submit the transfer notice as soon as possible after the capacity agreement is issued. Please contact us if you need further information on this.
- A5.12 On the capacity market participation date, the capacity that the transfer notice relates to will no longer be eligible to receive ROCs and will instead be supported under CM. Once a capacity market transfer notice has been submitted to Ofgem it cannot be withdrawn.
- A5.13 Stations that have converted a unit to biomass, rather than the entire station, will be subject to the dual scheme facility (DSF) rules explained below.

Additional requirements for DSFs (including individual units that transfer from the RO to the CM)

A5.14 Operators will be required by the CfD Delivery Body to state in their CfD application that they are applying as a DSF. This information will be shared by the CfD Delivery Body with Ofgem. We will then ask operators to:

⁷³ Defined in the Electricity Capacity Regulations 2014.

⁷⁴ In accordance with Article 48 of the RO Order 2015 (as amended) for England and Wales.

- Confirm what the total installed CfD capacity of the generating station will be.
- Update their schematic diagram on the RER, showing the entire capacity of the generating station (both the RO and CfD capacity), including the separate metering arrangements. Operators should highlight on the schematic the RO capacity and the CfD capacity so that they can be easily distinguished. Operators should also indicate what each meter is measuring and the relevant meter details.
- Update the plant description on the RER to include the CfD capacity once the CfD capacity begins generating.
- Update the TIC, DNC and the capacity table to include the CfD capacity once the CfD capacity begins generating. The CfD capacity should be defined as excluded capacity.
- Confirm whether they want to claim Renewable Energy Guarantees of Origin (REGO) certificates on both their RO and CfD capacity. If so, monthly output data submissions for the generating station (both RO and CfD capacity) should be provided once the CfD capacity begins generating. There are specific steps that a station will need to take to do this. Refer to A5.21 for further details.
- <u>For DSFs that are not biomass conversions</u>: Confirm when the CfD capacity is expected to be commissioned
- For DSFs where units have been converted to biomass under CfD (or the CM) only: Once the CfD capacity begins generating, update the RO accreditation application to amend the total installed capacity (TIC) of the RO capacity at the generating station.

Metering arrangements at DSFs (including individual units that transfer from the RO to the CM)

- A5.15 Metering of the RO capacity and metering of the CfD capacity at a DSF must be separate and distinct. This is to ensure that the correct level of support is issued for the capacity that each scheme supports.
- A5.16 For the RO capacity at a DSF, this will involve:

- Metering the RO output electricity⁷⁵ separately or metering the non-RO output electricity separately and deducting it from the electricity metered for the whole generating station. It should be demonstrated to Ofgem that the metered output on which ROCs are to be claimed is only from the RO-accredited capacity. The RO capacity at a generating station should continue to meet its metering obligations under the RO.
- Calculating the RO input electricity⁷⁶ pro rata on the basis of the TIC (the RO and CfD capacity). The RO also provides the option of separate metering of input electricity solely used for non-RO capacity, or separate metering of all the input electricity used for the RO capacity.
- Providing separate fuel and sustainability data for the RO output electricity.
- A5.17 It is the operator's responsibility to ensure that they are aware of the metering requirements for both schemes when applying as a DSF. If the operator intends to apply as a DSF we recommend that you contact Ofgem in advance. For queries specific to the CfD capacity of a generating station, please contact the LCCC.

Offshore wind generating stations

RO-CfD phased projects

- A5.18 RO-accredited offshore wind generating stations that add new phases under CfD to become an RO-CfD phased project are subject to CfD phasing rules.⁷⁷ You should contact the LCCC for further information. RO and CfD phases will need to be on entirely separate strings of turbines, with no connection that allows electricity generated by RO-registered strings to be exported on a CfD string or vice versa.
- A5.19 Operators undergoing phasing that wish to undertake this option should inform Ofgem on or before 31 March 2017. Operators of RO-accredited offshore wind generating stations should be aware that if they apply for a CfD for any unregistered turbines this

⁷⁵ This term is defined in Article 2(1) RO Order (2015) (as amended) (as "RO output electricity") and Article 2(1) of the RO(S) Order 2009 (as amended) (as "total output electricity").

⁷⁶ This term is defined in Article 2(1) RO Order (2015) (as amended) (as "RO input electricity") and Article 2(1) of the RO(S) Order 2009 (as amended) (as "Total input electricity").

⁷⁷ Information on the CfD metering policy for phased projects is available at: <u>https://www.gov.uk/government/publications/electricity-market-reform-contracts-for-difference</u>

means they cannot register any further turbines under the RO. This is because the operator has made their `choice of scheme'.⁷⁸

A5.20 For further information on registering offshore wind turbines under the RO please refer to Appendix 3.

DSFs wishing to claim REGOs on their RO and CfD or CM capacity

- A5.21 Operators of generating stations that have accreditation under the RO and REGO schemes do so under one accreditation application to Ofgem that covers both schemes. The information required to calculate the correct certificate issue under each of the schemes is also provided by the generator in their output data submission each month via the RER.
- A5.22 To ensure that a DSF that wishes to claim REGOs on its RO and CfD/CM capacity gains the correct level of support from each scheme the following steps will be undertaken:
 - The DSF will register the CfD or CM capacity as excluded/unsupported capacity on the Register, under the existing RO accreditation.
 - The separately metered output from each capacity (RO/CfD or CM) will need to be submitted monthly, alongside relevant fuel information.
 - Ofgem will then use this information to issue the correct number of ROCs and REGOs for that DSF.

Fuel measurement and sampling (FMS), and sustainability reporting

- A5.23 There are no changes to the RO concerning the fuel data provisions for the RO capacity at a DSF. However, FMS procedures may need to be revisited and agreed. Fuel use in the RO capacity should be separate and distinct from fuel use in the CfD or CM capacity.
- A5.24 Fuelled stations accredited under the RO must agree FMS procedures with Ofgem, and report against the RO sustainability criteria. DSFs will continue to do this directly with

⁷⁸ The choice of scheme takes place when the operator (a) submits an application for full accreditation under the RO for a new generating station, (b) submits an amended RO accreditation application to register additional capacity \geq 5MW under the RO at an existing RO generating station, (c) submits an application for a CfD, or (d) entered into an investment contract. Once this choice has been made, an applicant cannot apply for the other scheme, unless the original application is rejected. If an applicant chooses to withdraw their application, they cannot apply for the other scheme as they have already made their choice.

Ofgem for the RO capacity, as will generating stations supported under REGO. We provide the LCCC with support and advice on the FMS and sustainability reporting aspects of the CfD scheme.

Conditions of accreditation

A5.25 Under the RO, generating stations are subject to a number of conditions of accreditation. For DSFs, we will attach an additional condition of accreditation that DSFs must tell Ofgem about changes made to the CfD or CM capacity at the generating station, as well as the RO capacity. We will do this when the station becomes a DSF. This is to make sure reporting is accurate.



Appendix 6: Annual ROC cap applicable to electricity generated by certain co-firing and conversion stations

Appendix summary

Explains the conditions that influence when and to whom the annual ROC cap affects and the mechanism that determines ROC issue to capped generating stations.

A6.1 The Renewables Obligation (Amendment) Order 2018 introduced an annual ROC cap on certain generating stations claiming co-firing and conversion ROCs in England and Wales. The purpose of this Appendix is to help generating stations to determine whether they are affected by this cap and what it means for them.

Impact of the annual ROC cap on stations

- A6.2 The annual ROC cap affects some relevant fossil fuel stations claiming co-firing and conversion ROCs. For these stations the legislation defines that combustion units can either be "capped" or "exempt".
- A6.3 Under the annual ROC cap,⁷⁹ "relevant fossil fuel station" has a different meaning to its use in the rest of the Order. It has the meaning in Schedule 5 of the ROO 2015 (as amended) but does not include:
 - a generating station that received ROCs as a "dedicated biomass" generating station (including "dedicated biomass with CHP"), as defined in Appendix 2 of this guidance, before it became a "relevant fossil fuel station", or
 - a microgenerator.
- A6.4 Generating stations that are affected are those that include at least one capped combustion unit. A generating station is only exempt from the cap if it has no capped units, ie, only exempt units.
- A6.5 Subject to Paragraph A5.7 of this guidance, an "exempt combustion unit" is a combustion unit of a relevant fossil fuel station where unit or station conversion (including "with CHP")
 ROCs were issued in respect of electricity generated before 12 December 2014.
- A6.6 If your generating station is currently not affected by the cap (ie, all exempt units), there is no need for you to take any immediate action.

⁷⁹ Schedule 6 of the ROO 2015 (as amended).

A6.7 The Orders state that exempt combustion units will lose their exemption if, during any 6month period, the unit generates more than 15% (by energy content) of its electricity from fossil fuels (not including fossil fuel for permitted ancillary purposes). These operators have a responsibility to monitor their status in relation to the cap and inform us of any changes such that the cap may affect them in the future by emailing Renewable.outputdata@ofgem.gov.uk.

How the cap works

- A6.8 As described above, a station is affected by the cap if it has at least one capped unit:
 - A generating station that only contains capped units is a "capped generating station".
 - A generating station that has a mixture of capped and exempt units is a "mixed generating station".
- A6.9 The assessment of whether a station is capped or mixed:
 - for the 2018/19 obligation period took place on 20 July 2018, and
 - for the 2019/20 and subsequent obligation periods took place on 1 September in the previous obligation period.

How many ROCs can a capped generating station receive?

A6.10 A capped generating station's ROC allowance per obligation period is:

Number of capped combustion units x 125,000 ROCs

A6.11 ROC claims by capped generating stations will be monitored as a simple running total on a station-wide basis throughout the obligation period. The RER will track the running total of ROCs issued. Once the total allowance is reached no more ROCs will be issued to the station for the rest of that obligation period.

Number of ROCs a mixed generation station can receive

A6.12 Given that mixed generating stations are now required to report at the combustion unit level in order to identify ROCs associated with generation by specific units, they will no longer be able to claim ROCs on the "station conversion" or "station conversion with CHP" bands. Instead, any ROCs associated with biomass conversion will be issued on the "unit conversion" or "unit conversion with CHP" bands. Information on the ROC bands is provided in Appendix 3.

- A6.13 The low-range co-firing notification cannot be used by mixed generating stations.
- A6.14 Mixed generating station's ROC allowance per obligation period is capped when both of the following tests are met:
 - ROC issue to the station meets the mixed generating station estimate, as defined in A5.15, and
 - ROC issue to capped combustion units exceeds the capped combustion unit allowance:

Number of capped combustion units x 125,000 ROCs

A6.15 For each obligation period the Secretary of State will publish the "exempt combustion unit estimate" for each relevant exempt combustion unit of a mixed generating station in accordance with Schedule 6 of the ROO 2015 (as amended). This will be used to calculate the "mixed generating station estimate":

Capped combustion unit allowance + exempt combustion unit estimate

A6.16 Unless the ROCs claimed would exceed both the capped combustion unit allowance and the mixed generating station estimate, all ROCs claimed will be issued. Where both thresholds would be exceeded by the ROCs claimed in a month, we would first consider as many capped combustion unit ROCs for issue as we can, and then exempt combustion unit ROCs second. This is illustrated in the three scenarios detailed in Figure 7 below:



Figure 7: ROC issue to a mixed generating station when its cap is breached



Outcome

In scenario 3, both the mixed generating station estimate and the capped combustion unit allowance were met in December.

The mixed generating station has used its capped combustion unit flexibly and so all capped combustion unit ROCs would be issued assuming this does not take them over the mixed generating station estimate.

ROCs claimed on the exempt combustion units would only be issued up to where the total ROCs issued is equal to the mixed generating station estimate.

Monitoring the cap for a mixed generating station

- A6.17 ROCs claimed by mixed generating stations will be monitored on a unit by unit basis throughout the obligation period The RER will be able to track all ROCs issued to the mixed generating station units.
- A6.18 Metering of output electricity from each unit in a mixed generating station must be separate and distinct.
- A6.19 Mixed generating stations are also required to report RO input electricity at combustion unit level. The operator will calculate their RO input electricity as normal but this will then be pro-rated by the RER, and an amount attributed to each unit in accordance with Article 26A in Paragraph 9 of Schedule 6 to the ROO.
- A6.20 If the TIC of a capped or exempt combustion unit of a mixed generating station does not include any excluded capacity that month, RO input electricity of the unit is equal to:

$$\frac{A \times B}{C}$$

Where:

 A is the RO input electricity of the mixed generating station that month (as calculated in line with Article 26A in Paragraph 9 of Schedule 6 of the ROO 2015 (as amended),

- B is the total output electricity of the unit that month,
- C is the sum of the RO output electricity of each capped and exempt combustion unit of the mixed generating station that month.
- A6.21 The Orders also make provisions for combustion units that are comprised of a combination of RO capacity and excluded capacity. More information on this can be found in the ROO 2015(as amended).
- A6.22 See Figure 8 for a worked example apportioning RO input electricity across a mixed generating station. Using RO output electricity to set the proportions, the result of these workings is the RO input electricity per unit which will be used to calculate a generating station's RO eligible renewable output. The RO eligible output is what we would issue ROCs for, providing the station cap is not met.
- A6.23 Data submissions on the RER will not change and the operator will still need to provide their electrical and fuel information at the unit level.

Figure 8: A worked example of RO input calculated per combustion unit



- (A) RO input electricity for the station is calculated in accordance with article 26 of the ROO.
- (B) RO input electricity per combustion unit is calculated in accordance with article 26A in paragraph 9 of Schedule 6 to the ROO.

Amending data submissions

A6.24 Guidance on amending data for generating stations is set out in Paragraphs 4.64-4.73 of this document.

- A6.25 Where a generating station affected by the annual ROC cap amends their data we will review the changes to establish what impact this has had in relation to the cap for that period.
- A6.26 If the amendments result in a change to when the cap has been breached this may result in ROCs being revoked or further ROCs being issued.

Things to do if your station is affected by the cap

A6.26 Operators of generating stations affected by the cap have a responsibility to inform us of their status in relation to the cap by contacting the team: renewable.outputdata@ofgem.gov.uk. You will not need to notify this to us each proceeding year but you should monitor the generating station's status on an ongoing basis and make us aware of any changes.