

Renewables Obligation

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Industry standards and practices for commissioning fuel burning generating stations: a call for evidence

Overview

This document invites your views on the industry standards and practices that are currently used for commissioning fuel burning generating stations. It outlines the types of generating stations in question and the key principles to be considered.

Appendix 1 explains how to submit a response to this call for evidence.

Please respond to us by 26 August 2016.

Associated Documents

The following documents support this publication:

Legislation

All documents are available at www.legislation.gov.uk:

- The Renewables Obligation Order 2015
- The Renewables Obligation (Scotland) Order 2009 (as amended)
- The Renewables Obligation Order (Northern Ireland) 2009 (as amended)
- The Renewables Obligation Closure Order 2014 (as amended)
- The Renewables Obligation Closure Order (Northern Ireland) 2015

Guidance

All documents are available at www.ofgem.gov.uk/ro:

- Renewables Obligation: Guidance for Generators
- Renewables Obligation: Essential Guide to Commissioning
- Renewables Obligation: Guidance on the transition period and the closure of the RO

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1. Introduction

What is the RO?

1.1. The Renewables Obligation (RO), the Renewables Obligation (Scotland) (ROS) and the Northern Ireland Renewables Obligation (NIRO) are designed to incentivise large-scale renewable electricity generation in the UK. The Renewables Obligation Orders¹, the legislation underpinning the RO, ROS and NIRO, place an obligation on licensed UK electricity suppliers to source an increasing proportion of electricity from renewable sources.

1.2. The Department of Energy and Climate Change (DECC), the Scottish Government and the Department for the Economy (DfE) are responsible for developing the policy underpinning the RO, ROS and NIRO respectively including setting support levels, establishing the legislative framework and making amendments to the legislation.

What is Ofgem's role?

1.3. Ofgem administers the respective schemes and its day-to-day functions on behalf of the Gas and Electricity Markets Authority (the Authority). We do this according to the legislation, ie the RO Order in England and Wales and the ROS Orders in Scotland.

1.4. We administer the Northern Ireland Renewables Obligation (NIRO) in accordance with the NIRO Orders on behalf of the Utility Regulator Northern Ireland (UREGNI) under an Agency Services Agreement. However, UREGNI continues to retain responsibility under the legislation for administering the NIRO.

1.5. We carry out our functions as efficiently and effectively as possible, according to the provisions of the Orders. We cannot act beyond the scope of the powers laid down in the Orders.

This document

1.6. This document invites your views on the industry standards and practices for commissioning fuel burning generating stations.

1.7. We cannot grant accreditation under the RO until a generating station has commissioned. We therefore need to determine the commissioning date for each station, on a case by case basis, in line with the definition in legislation.

1.8. Firstly, we look to the operator of a generating station to specify a commissioning date in their accreditation application and provide supporting evidence. We published our [Renewables Obligation: Essential Guide to Commissioning](#) to help operators determine the date their generation station has or will be commissioned.

¹ The Renewables Obligation Order 2015, The Renewables Obligation (Scotland) Order 2009 (as amended), and The Renewables Obligation Order (Northern Ireland) 2009 (as amended).

1.9. The commissioning date is used, in part, to determine a station's accreditation date. The accreditation date is significant as it is the point at which RO support starts and determines the level of support available to that generating station.

1.10. In light of scheme closure on 1 April 2017 and the introduction of various grace periods, the commissioning date will become even more significant. As there remains a continued interest in fuel burning generating stations, we consider it prudent to undertake a review of the usual industry standards and practices that currently apply to commissioning such stations. This will allow us to take a consistent and robust approach to what is a broad definition. As such, we are inviting views from industry to inform our thinking.

2. Industry standards and practices

Chapter Summary

This chapter clarifies what opinions we are seeking from stakeholders and the key principles you should consider when responding.

Main Questions

The types of generating stations that we are inviting views on are those which:

- Combust solid biomass or waste using a boiler and steam turbine set
- Combust liquid or gaseous biomass, including that derived from advanced conversion technology or anaerobic digestion, using a reciprocating engine
- Combust gaseous biomass, derived from advanced conversion technology or anaerobic digestion, using a gas turbine

1) What do you believe are the current:

- a) **procedures and tests** which need to be completed for these types of generating stations to be considered capable of commercial operation?
- b) **usual industry standards and practices**, which define the procedures and tests?

2) Are there any documents, such as formal standards, which support your views?

When providing views on commissioning boiler and steam turbine sets and reciprocating engines, make it clear which fuel state is being considered: solid, liquid or gas.

We are not seeking views on how the definition of 'commissioned' should be interpreted, just the procedures and tests and usual industry standards and practices relevant to commissioning fuel burning generating stations.

What the legislation says

2.1. The term "commissioned" is defined in the RO Orders as follows:

"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.

2.2. The date on which a generating station is commissioned therefore depends on when the procedures and tests relevant to that type of generating station were completed, such that it was capable of commercial operation. The relevant procedures and tests are those which

constitute the usual industry standards and practices at the time of commissioning. It is important to note that the legislation anticipates capability of operation, rather than actuality.

2.3. The term “generating station” is not defined in the Orders but we have outlined our views on what equipment we would typically expect a generating station to consist of in chapter 2 of our [Renewables Obligation: Guidance for Generators](#).

2.4. Typically, we do not expect any sets of equipment used for handling or preparing a material or substance before it is converted into the final fuel used in the boiler, turbine or engine to be considered part of the generating station. For example, the gasifier(s)/pyrolyser(s) at an advanced conversion technology (ACT) station and the digester(s) at an anaerobic digestion (AD) station are generally not considered part of the generating station. We are not seeking views on what equipment is part of the generating station. We only want your views on the procedures and tests and usual industry standards and practices for commissioning fuel burning generating stations.

Points to consider when responding

2.5. We are aware that the process of commissioning a fuel burning generating station can be lengthy and complex, and can differ from station to station. It will involve a number of activities which can be drawn together under three general headings, shown in Table 1.

Table 1: Phases of commissioning a fuel burning generating station

Phase	Description
Mechanical completion	The point at which all the equipment has been installed as per the contract specification, design drawings and standards.
Cold commissioning	Those commissioning activities performed before introducing the live process fluid or the product to be combusted.
Hot commissioning	Those commissioning activities that are performed after the introduction of the live process fluid or the product to be combusted.

2.6. There may be other activities which take place after those outlined in Table 1, such as performance and acceptance testing, which generally demonstrate that the station is capable of operating at full load for a sustained period of time. We are conscious that a number of operators have recently proposed that their station was not commissioned until this was the case. This, to an extent, is understandable as operators want to maximise the timeframe over which they receive support at full operation. However, the definition of ‘commissioned’ is clear in that the procedures and tests are just those which are needed for that type of station to be capable of commercial operation.

2.7. Our experience has shown us that performance and acceptance testing is more to do with defining the transition of responsibility from the contractor to the owner, rather than the procedures and tests required for a fuel burning station to become capable of commercial operation. We do not necessarily think that these procedures are covered by the definition of ‘commissioned’. It is our view that commercial operation is not contingent on a successful reliability, performance or take-over test unless there are specific contractual arrangements associated with commissioning tests which suggest otherwise.

2.8. We also consider that as scheme closure approaches operators may well argue the opposite, and claim that the barest minimum of procedures and tests have to be completed for the definition to be met.

2.9. In particular, we are keen to make a clear distinction between the procedures and tests that relate to the commissioning of a station versus those that relate to arrangements between the operator and its contractors. This is also true of operational issues that occur shortly after commissioning. To the greatest extent possible we wish to draw a clear line between issues that arise during the commissioning process and those that occur as a result of normal operation.

Supplementary questions

In addition to the main questions outlined at the start of this chapter, we also invite views on the following:

Permitting

The operator of a generating station may need various permits to meet any relevant environmental regulations, such as those associated with emissions.

- 3) What, if any, industry standards or practices exist which dictate that the generating station must be able to comply with the conditions of a permit before it can be considered capable of commercial operation?

Commissioning using alternative fuels

The definition of commissioned does not refer to the fuel type. It could therefore be possible that a station can commission using a fuel, potentially fossil fuel, which will not be the primary fuel during normal operation. For instance, if the change in fuel type would only require minor modifications to the station, and the commissioning procedures and tests are already completed.

- 4) What, if any, industry standards or practices exist which dictate that the relevant commissioning procedures and tests, required for a station to become capable of commercial operation, can only be completed once the station is running on the primary fuel?

Appendix 1 - Responses and Questions

We want to hear the views of anyone interested in the issues set out in this document. We especially welcome responses to the questions in chapter 2.

Please send us your response by 26 August 2016 to:

Fuelling and Sustainability team
Ofgem
9 Millbank
London
SW1P 3GE
0207 901 7310
fuellingandsustainability@ofgem.gov.uk

We'll use your responses to inform our decisions on the date fuel burning generating stations are commissioned. We do not intend to publish each response but we will publish a summary of the views.

You can ask for us to keep your views confidential. We will respect this, subject to any obligations to disclose information, for example, under the Freedom of Information Act 2000 or the Environmental Information Regulations 2004.

If you want your views to remain confidential, clearly mark your document(s) to that effect and include the reasons for confidentiality. Put any confidential material in the appendices to your response.

Send any questions on this document to the Fuelling and Sustainability team.

Appendix 2 - Feedback Questionnaire

We are keen to consider any comments or complaints about how this call for evidence has been conducted. We're also keen to get your answers to these questions:

1. Do you have any comments about the overall process adopted for this call for evidence?
2. Do you have any comments about the tone and content of the call for evidence?
3. Was the document easy to read and understand? Or could it have been better written?
4. Was this call for evidence balanced?
6. Please add any further comments.

Please send your comments to:

Fuelling and Sustainability team
Ofgem
9 Millbank
London
SW1P 3GE
0207 901 7310
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