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# Feed-in Tariff "Generating equipment" decision

## Decision


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**Overview:**

Renewable installations using "generating equipment" that has previously received support under the Renewables Obligation (RO) or Feed-in Tariff (FIT) schemes are not entitled to receive support through the FIT scheme.

This document sets out our decisions on what is considered "generating equipment" for each eligible technology. These decisions will only be applied when assessing an application for FIT accreditation where it is suspected that the generating equipment has previously received support under the RO or FIT schemes.

# Context

The Feed-in Tariff (FIT) scheme is an environmental programme aimed at promoting widespread uptake of a range of small-scale low carbon electricity generation technologies. It requires certain licensed electricity suppliers to pay fixed tariffs to small renewable generators for the electricity they generate. The FIT scheme policy and tariff rates are set by the Department of Energy and Climate Change (DECC). The scheme is administered on DECCs behalf by Ofgem and the FIT licensees.

Ofgem's role under the FIT scheme is to:

- assess accreditation applications for installations using the ROO-FIT accreditation process (ie wind and PV installations with a declared net capacity (DNC) over 50kW and all hydro and anaerobic digestion (AD) installations)
- to host the Central FIT Register (the Register which holds details of all FIT accredited installations), and
- to manage the process by which the cost of the FIT scheme is shared between all FIT Licensees, known as levelisation.

FIT eligibility provisions state that renewable installations using "generating equipment" that has previously received support under the RO or FIT schemes are not entitled to receive support under the FIT scheme. This is explained in the legislation that underpins the scheme (the FIT Legislation[1]).

The FIT legislation does not define the term "generating equipment". We published a consultation on 29 July 2011 to request views on how this term should be interpreted. This document sets out our decisions on the specific equipment that must not have received support for each eligible technology.

The FIT scheme has undergone a number of statutory amendments since the 'Generating Equipment' consultation closed in November 2011. As a result, we have delayed publishing this decision as we are now confident that those amendments do not impact the decisions set out in this document.

[1] Article 7(2) of The Feed-in Tariffs Order 2012. It should be noted that this Article replaced Article 8(2) of The Feed-in Tariffs (Specified Maximum Capacity and Functions) Order 2010 on 1 December 2012. This decision is equally relevant to the both Orders.

# Associated documents

- Feed-in Tariff (FIT): "Generating equipment" consultation (July 2011)
- The Feed-In Tariffs (Specified Maximum Capacity and Functions) Order 2010 (as amended) ("2010 FIT Order")
- The Feed-in Tariffs Order 2012 ("2012 FIT Order")
- Schedule A of Standard Licence Condition 33
- Renewables Obligation Order 2009 (as amended)
- Feed-in Tariff Scheme: Draft guidance for renewable installations V5 (November 2012)
- Feed-in Tariff Scheme: Draft guidance for Licensed Electricity Suppliers Version 5 (November 2012)

# Contents

# Summary

The 2010 FIT Order was amended in May 2011. This amendment introduced a new requirement preventing the reuse of "generating equipment" which Ofgem has reason to believe has previously received accreditation under the FIT or RO schemes.

In July 2011, we published the 'Feed-in Tariff (FIT): "Generating equipment" consultation'. In this document, we sought views on how the term "generating equipment" could be defined for the purpose of administering Article 8(2) of The Feed-in Tariffs (Specified Maximum Capacity and Functions) Order 2010. This Article was replaced by Article 7(2) of The 2012 FIT Order on 1 December 2012. Applications for accreditation made before 1 December 2012 will continue to be assessed under the 2010 FIT Order. This decision is equally relevant to the term "generating equipment" as used in both Orders.

This document summarises the responses to the July 2011 consultation and, in light of those responses, details Ofgem's decisions for the interpretation of the term "generating equipment". The decisions taken in this document do not extend beyond its use in this context.

We received 15 responses to the consultation. Respondents broadly agreed with our proposals in the July 2011 consultation.

Our final decisions are:

- For AD installations, the "generating equipment" is all equipment required to convert gas formed by the anaerobic digestion of material (which is neither sewage nor material in a landfill) into electricity.

- For hydro installations, the "generating equipment" is:
  - any turbine runners, turbine blades, propellers, hydrodynamic screws (including archimedes' screw), water wheels and/or all prime movers
  - all the inlet guide vanes or all the inlet guide nozzles
  - any generators/alternators (or any part thereof).

- For micro-CHP, the "generating equipment" is:
  - the prime mover (either gas engine, small gas turbine, or fuel cell)
  - the generator and heat recovery equipment
  - all the associated pipe work, valves, controls etc within the unit.

- For Solar PV, the "generating equipment" is the solar panels and inverters.

- For wind installations, the "generating equipment" is:
  - the turbine blades
  - tower (or equivalent supporting structure excluding the foundation pad)
  - hub, brakes, nacelle including gear-trains
  - generator/alternator and any other contents therein.

- "Other Items of Equipment" (as detailed in the consultation) will not be included as "generating equipment".

# 1. "Generating Equipment"

**Chapter summary**

Summarises the consultees' responses to the question: "Views are invited on how the term "generating equipment" in Article 8(2) of the FIT Order (as amended) should be interpreted."

The chapter also includes Ofgem's decisions for the interpretation of the term "generating equipment" for each technology supported under the FIT scheme.

## Anaerobic Digestion (AD)

1.1. In general, respondents supported our proposed interpretation of "generating equipment" for AD installations. One respondent suggested that AD technology may develop to allow for the use of liquid fuels and as such the definition should not be restricted to the conversion of gas.

*Ofgem decision*

1.2. For the purposes of FIT accreditation, we are required to use a definition of AD provided under the Renewables Obligation Order (ROO) which currently specifies gas only[2]. Accordingly, only equipment that generates electricity from gas could be accredited under the FIT scheme: and so only such equipment could be assessed against the words "generating equipment". In the event that this RO definition is changed to include liquids, or a different definition is inserted into FIT legislation, we may look again at the definition of AD "generating equipment".

1.3. We will interpret the "generating equipment" within an AD installation to be all equipment required to convert gas formed by the anaerobic digestion of material (which is neither sewage nor material in a landfill) into electricity.

1.4. We will view all engines, turbines and alternators (or any part thereof) of an eligible installation to be generating equipment. We will not consider any gas blowers, anaerobic digestion vessels, gas clean-up equipment and any associated pipe work to be generating equipment.

## Hydro

1.5. In general, respondents agreed with our proposal to interpret the "generating equipment" in the context of a hydro generating installation.

[2] "means electricity generated from gas formed by the anaerobic digestion of material which is neither sewage or material in a landfill." Renewables Obligation Order 2009 (as amended).

1.6. One respondent suggested that some of the equipment specified was not easily accessible (such as runners, blades, veins and nozzles) and so would be difficult to confirm whether they were new. Another respondent suggested that control panels should be included as hydro "generating equipment" as it is necessary for the electricity generated to be conditioned or inverted. Two respondents recommended including water wheels or "all prime movers". And one further respondent commented that the term "archimedes screw" can be used inappropriately and may cause confusion. It was suggested that "hydrodynamic screw" would be more appropriate.

1.7. All eight respondents that commented on the definition of hydro "generating equipment" agreed that civil works should be excluded. It was also noted that this approach was consistent with other relevant technical standards including MCS018 and British Standard (BS8887). One respondent recommended being more specific with what we considered to be "civil works".

*Ofgem decision*

1.8. We will interpret the "generating equipment" within a hydro installation to be:

- any turbine runners, turbine blades, propellers, hydrodynamic screws (including archimedes' screw), water wheels and/or all prime movers
- all the inlet guide vanes or all the inlet guide nozzles
- any generator/alternators (or any part thereof).

1.9. We acknowledge that civil works will vary according to the scale and location of an installation. In respect of installations that must be assessed under the 2010 FIT Order, we are obliged to have regard for the definition of "civil works" in the ROO, and hence it is not appropriate for us to define this any further. Under both the 2010 FIT Order and the 2012 FIT Order, we will not regard civil works as "generating equipment".

## Micro CHP

1.10. One response was received in relation to micro CHP. That respondent agreed with our proposed approach.

*Ofgem decision*

1.11. We will interpret the "generating equipment" within a micro CHP installation to be:

- the prime mover (either gas engine, small gas turbine, or fuel cell)
- the generator and heat recovery equipment
- all the associated pipe work, valves, controls etc within the unit.

## Solar PV

1.12. We received six responses to the proposed definition of solar PV "generating equipment".

1.13. Two respondents proposed that inverters should not be considered "generating equipment" as their purpose is to convert DC power to AC rather than generate electricity.

1.14. One respondent highlighted an inconsistency of including inverters compared with the Microgeneration Certification Scheme (MCS) accreditation process for PV. The express concern was that MCS approve solar panels and not inverters.

1.15. The remaining three respondents agreed with our proposals.

*Ofgem decision*

1.16. In view of the responses received, we will interpret the "generating equipment" within a PV installation to be all solar panels and inverters. This is on the basis that inverters are vital for converting DC power into AC power. Taking account of our responses in conjunction with the definition of 'plant'[3] in the FIT legislation, it is clear that the combination of solar panels and inverters are fundamental to the claim of FIT payments.

1.17. This decision covers the interpretation of the term "generating equipment" in Article 8(2) of the FIT Order and Article 7(2) of the FIT Order 2012 only. The requirements of MCS are outside of the scope of this consultation.

## Wind

1.18. Seven respondents provided views on the interpretation of "generating equipment" for wind installations. The majority of respondents agreed with our proposals.

1.19. A number of respondents suggested that the reuse of foundation pads for turbines and the underground distribution cables should be permitted. This is due to the high environmental impact of removing and reinstating such works.

1.20. Two respondents proposed that towers should be excluded as they are built to support the "generating equipment" and have no moving or electrical parts. It was also proposed that the term "tower" should be replaced by "support structure" because not all turbines require a conventional tower.

[3] "means any equipment, apparatus or appliance" - Schedule A of Standard Licence Condition 33

1.21. One respondent suggested that the turbine controller should also be included as "generating equipment".

1.22. One further respondent suggested that the interpretation of "generating equipment" for wind installations should be expanded to state "any gear-trains and generator/alternator, if the nacelle is a single production item".

*Ofgem decision*

1.23. We will interpret the "generating equipment" within a wind installation to include the turbine blades, tower (or equivalent supporting structure excluding the foundation pad), hub, brakes, nacelle including gear-trains and generator/alternator and any other contents therein. Whilst it is not moving plant, the turbine tower is essential to the generation of electricity as a wind turbine is not capable of generating in absence of one.

## Other items of equipment

1.24. A number of respondents gave general comments on the other items listed in the consultation.

- *Metering*

  All six respondents who commented stated that metering should not be included in the interpretation of "generating equipment".

- *Wires, distribution boards, breakers and switches, relays, parasitic loads associated with an eligible installation*

  All five organisations that responsed suggested that the above items should not be included as "generating equipment".

- *Transformers*

  Five respondents proposed that transformers should not be included as "generating equipment". One organisation commented specifically that they are used for the distribution of electricity rather than generation (although we note that they may constitute part of an eligible installation). It was also noted by one respondent that large transformers are commonly rewound and reused.

- *Grid connections*

  All respondents who commented on this point proposed that grid connections should be excluded from "generating equipment". This is because the grid connection is used to transmit, rather than generate, electricity. There was also concern about the adverse environmental impact of installing new grid connections where unnecessary.

There was also concern that grid connections are owned by the distribution/transmission network operator and to include them as "generating equipment" could pose problems with eligibility outside the control of the generator.

- *Batteries and rectifiers*

  Five respondents commented that batteries and rectifiers should not be included as "generating equipment". One respondent argued that batteries should be excluded as they store electricity.

*Ofgem decision*

1.25. We will not include the following in our interpretation of "generating equipment":

- Metering
- Wires
- Distribution boards
- Breakers and switches
- Transformers
- Relays
- Grid connections
- Parasitic loads (eg cooling fans and dehumidifiers)
- Batteries
- Rectifiers

## Other policy issues

1.26. One respondent suggested that a single, overarching definition of "generating equipment" would be simpler to administer rather than interpreting each technology individually. Another respondent suggested that consideration should be had for the IEC 60050 series published by the International Electrotechnical Commission.

1.27. Whilst it is acknowledged that a single detailed definition could be drafted, to date the FIT legislation has provided no such definition. We have taken the above approach in order to provide greater guidance and certainty to generators about how we will interpret Article 8(2) of the FIT Order 2010 and Article 7(2) of the FIT Order 2012.

1.28. Several respondents suggested that defining the term "generating equipment" will provide clarity to the rules regarding grants. Again, the purpose of this decision is to interpret the term "generating equipment" for the purposes of Article 8(2) of the FIT Order 2010 and Article 7(2) of the FIT Order 2012 only. The rules covering grants in FIT legislation do not make reference to the term "generating equipment".

# Appendices

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# Appendix 1 – List of respondents

1.1. There were 15 responses to the consultation document received by Ofgem.

| List | Name |
|---|---|
| 1 | Community Energy Scotland |
| 2 | Micro Hydro Association |
| 3 | River Energy Networks |
| 4 | British Hydropower Association & Scottish Renewables |
| 5 | Element Engineering UK Ltd |
| 6 | Distribution Generator Ltd |
| 7 | Renewable UK and Scottish Renewable |
| 8 | Langage Solar Park |
| 9 | Clapton Mill |
| 10 | British Gas |
| 11 | SSE |
| 12 | Ecoelectric Ltd |
| 13 | Renewable Energy Association |
| 14 | CRF Hydropower |
| 15 | World Wide Wind Turbines |

1.2. Responses received by Ofgem which were not marked as being confidential have been published on Ofgem's website www.ofgem.gov.uk. Copies of non-confidential responses are also available from Ofgem's library.

# Appendix 2 – Consultation questions

1.1. In its consultation document (Feed-in Tariff (FIT): "Generating equipment" consultation - Reference number: 91/11) Ofgem sought the views of respondents about the question as set out below:

**CHAPTER: One**

**Question 1:** Views are invited on how the term "generating equipment" in Article 8(2) of the FIT Order (as amended) should be interpreted.

# Appendix 3 - Glossary

| | |
|---|---|
| AD | Anaerobic Digestion |
| CHP | Combined Heat and Power |
| MCS-certified installation | means an Eligible Installation using an MCS-FIT Technology which has been recognised by MCS or equivalent as satisfying relevant equipment and installation standards |
| ROO | means collectively the Renewables Obligation Order 2009 and Renewables Obligation (Scotland) Order 2009 (or equivalent determinations under any amendments to those Orders or re-enactments of the RO upon revocation of those Orders) |
| ROO-FIT accreditation | means the process of accreditation pursuant to the FIT Order to be undertaken in respect of an Eligible Installation not using an MCS-FIT Technology |

# Appendix 4 - The Authority's powers and duties

1.1. Ofgem is the Office of Gas and Electricity Markets which supports the Gas and Electricity Markets Authority ("the Authority"), the regulator of the gas and electricity industries in Great Britain. This Appendix summarises the primary powers and duties of the Authority. It is not comprehensive and is not a substitute to reference to the relevant legal instruments (including, but not limited to, those referred to below).

1.2. The Authority's powers and duties are largely provided for in statute, principally the Gas Act 1986, the Electricity Act 1989, the Utilities Act 2000, the Competition Act 1998, the Enterprise Act 2002 and the Energy Act 2004, as well as arising from directly effective European Community legislation. References to the Gas Act and the Electricity Act in this Appendix are to Part 1 of each of those Acts.[4]

1.3. Duties and functions relating to gas are set out in the Gas Act and those relating to electricity are set out in the Electricity Act. This Appendix must be read accordingly[5].

1.4. The Authority's principal objective when carrying out certain functions under each of the Gas Act and the Electricity Act is to protect the interests of existing and future consumers, wherever appropriate by promoting effective competition between persons engaged in, or in commercial activities connected with, the shipping, transportation or supply of gas conveyed through pipes, and the generation, transmission, distribution or supply of electricity, or the provision or use of electricity interconnectors.

1.5. The Authority must, when carrying out those functions, have regard to:

- the need to secure that, so far as it is economical to meet them, all reasonable demands in Great Britain for gas conveyed through pipes are met;
- the need to secure that all reasonable demands for electricity are met;
- the need to secure that licence holders are able to finance the activities which are the subject of obligations on them[6];
- the need to contribute to the achievement of sustainable development; and
- the interests of individuals who are disabled or chronically sick, of pensionable age, with low incomes, or residing in rural areas.[7]

[4] entitled "Gas Supply" and "Electricity Supply" respectively.
[5] However, in exercising a function under the Electricity Act the Authority may have regard to the interests of consumers in relation to gas conveyed through pipes and vice versa in the case of it exercising a function under the Gas Act.
[6] under the Gas Act and the Utilities Act, in the case of Gas Act functions, or the Electricity Act, the Utilities Act and certain parts of the Energy Act in the case of Electricity Act functions.
[7] The Authority may have regard to other descriptions of consumers.

- Subject to the above, the Authority is required to carry out the functions referred to in the manner which it considers is best calculated to:
- promote efficiency and economy on the part of those licensed[8] under the relevant Act and the efficient use of gas conveyed through pipes and electricity conveyed by distribution systems or transmission systems;
- protect the public from dangers arising from the conveyance of gas through pipes or the use of gas conveyed through pipes and from the generation, transmission, distribution or supply of electricity; and
- Secure a diverse and viable long-term energy supply.

1.6. In carrying out the functions referred to, the Authority must also have regard, to:

- the effect on the environment of activities connected with the conveyance of gas through pipes or with the generation, transmission, distribution or supply of electricity;
- the principles under which regulatory activities should be transparent, accountable, proportionate, consistent and targeted only at cases in which action is needed and any other principles that appear to it to represent the best regulatory practice; and
- certain statutory guidance on social and environmental matters issued by the Secretary of State.

1.7. The Authority has powers under the Competition Act to investigate suspected anti-competitive activity and take action for breaches of the prohibitions in the legislation in respect of the gas and electricity sectors in Great Britain and is a designated National Competition Authority under the EC Modernisation Regulation[9] and therefore part of the European Competition Network. The Authority also has concurrent powers with the Office of Fair Trading in respect of market investigation references to the Competition Commission.

[8] or persons authorised by exemptions to carry on any activity.
[9] Council Regulation (EC) 1/2003

# Appendix 5 - Feedback questionnaire

1.1. Ofgem considers that consultation is at the heart of good policy development. We are keen to consider any comments or complaints about the manner in which this consultation has been conducted. In any case we would be keen to get your answers to the following questions:

1. Do you have any comments about the overall process, which was adopted for this consultation?
2. Do you have any comments about the overall tone and content of the report?
3. Was the report easy to read and understand, could it have been better written?
4. To what extent did the report's conclusions provide a balanced view?
5. To what extent did the report make reasoned recommendations for improvement?
6. Please add any further comments?

1.2. Please send your comments to:

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