

DECC Consultation: Proposed RO support levels from 2013-2017

The Department of Energy and Climate Change (DECC) published the 2013-2017 Renewables Obligation Certificate (ROC) banding review consultation on 20th October, following a three month delay. The document sets out the Government's proposals for the level of ROC awards available to new stations accredited in the period 2013-2017. Responses to the consultation are welcomed up until January 2012, with the new changes coming into effect from April 2013.

The proposed new levels of support for the main technology bands, along with the current levels are shown in the table below:

Technology	Current support (ROC/MWh)	Proposed 2013-17 support (ROC/MWh)
Fossil fuel to biomass conversion	1.5	1
Enhanced co-firing with biomass	0.5	1
Co-firing with biomass	0.5	0.5
Dedicated biomass	1.5	1.5 in 2013-16; 1.4 in 2016-17
Dedicated energy crops	2	2 in 2013-15; 1.9 in 2015-16; and 1.8 in 2016-17
Standard ACT	1	0.5
Advanced ACT	2	2 in 2013-15; 1.9 in 2015-16; and 1.8 in 2016-17
Anaerobic digestion	2	2 in 2013-15; 1.9 in 2015-16; and 1.8 in 2016-17
Hydro	1	0.5
Geothermal	2	2 in 2013-15; 1.9 in 2015-16; and 1.8 in 2016-17
Landfill gas	0.25	0
Micro-generation (50kW – 5MW)	2	2 in 2013-15; 1.9 in 2015-16; and 1.8 in 2016-17
Onshore wind	1	0.9
Offshore wind	2	2 in 2013-15; 1.9 in 2015-16; and 1.8 in 2016-17
Sewage gas	0.5	0.5
Solar photovoltaic	2	2 in 2013-15; 1.9 in 2015-16; and 1.8 in 2016-17
Tidal stream	2	5 up to 30MW cap; 2 above this
Wave	2	5 up to 30MW cap; 2 above this

The consultation proposes that the remaining technology bands that are not currently supported under the grandfathering policy be included in this group as well. This would mean that all the technology bands above would receive the level of support applicable to that band at the time of commissioning for the duration of the Renewables Obligation scheme.

Headline changes

Onshore Wind

This is possibly the change with the greatest significance to the UK renewables industry. The government is planning to reduce the ROC banding level by 10% from a single ROC to 0.9 ROCs. This is down to the perceived price competitiveness of wind becoming increasingly close to fossil fuel alternatives in recent years.

“Our costs and incomes analysis shows that the cost effectiveness of the technology continues to improve, and is moving towards a situation where subsidies may no longer be required in the longer term. This suggests that the ROC level could be reduced slightly without significantly adversely affecting deployment rates.” [DECC]

Wave and Tidal Stream

In response to the Scottish government’s move to award 5 ROCs to Wave technologies and 3 ROCs to Tidal Stream central government has followed suit and raised the stakes by proposing to provide 5 ROCs for both technologies. It recognises that increasing the subsidies available for these technologies is unlikely to make any significant inroads on the 2020 targets in the short to medium term, but believes that the wave and tidal stream industries could be a major source of growth in the UK in the period past the 2020 deadline.

“The UK has a global lead in wave and tidal stream technology development. As technology price makers the levels of deployment in the UK will be directly related to our ability to drive down the cost of generation. Wave and tidal stream technologies provide the UK with a unique opportunity to develop an indigenous industry which has the potential to secure significant inward investment, drive an export market and create economic growth. “ [DECC]

New RO bands

Advanced Conversion Technologies (ACTs)

There are currently two bands – standard and advanced – for both gasification and pyrolysis technologies. These bands are defined and differentiated by the calorific output of the syngas or liquid fuel produced and used to generate electricity.

- **“standard gasification”** means electricity generated from a gaseous fuel that has a gross calorific value, when measured at standard conditions, of 2 MJ/m³ but is less than 4 MJ/m³.
- **“standard pyrolysis”** means electricity generated from a gaseous fuel that has a gross calorific value, when measured at standard conditions, of 2 MJ/m³ but is less than 4 MJ/m³.
- **“advanced gasification”** means electricity generated from a gaseous fuel that has a gross calorific value, when

measured at standard conditions, of at least 4 MJ/m³

• **"advanced pyrolysis"** means electricity generated from a liquid or gaseous fuel and;

a) in the case of a gaseous fuel, has a gross calorific value when measured at standard conditions of at least 4 MJ/m³, and

b) in the case of a liquid fuel, has a gross calorific value when measured at standard conditions of at least 10 MJ/kg.

The consultation proposes that these existing four technology bands be reduced to two new bands:

- **Standard ACT – eligible for 0.5 ROCs**
- **Advanced ACT – eligible for 2 ROCs**

The new standard ACT band would cover all electricity generated by pyrolysis/gasification of waste or biomass by means of a **steam Rankine cycle or similar**. There would then be no need to comply with current minimum gross calorific value requirements for the gaseous or liquid fuel.

The new advanced ACT band would cover all electricity generated by pyrolysis/gasification of waste or biomass by means of an **internal combustion engine**. There would then be no need to comply with current minimum gross calorific value requirements for the gaseous or liquid fuel.

The new distinction then between the advanced ACT band and the standard ACT band is that under the advanced ACT band the electricity must be generated by an internal combustion engine (such as a gas turbine). In addition the proposals suggest that the advanced ACT band would also cover the additional electricity generated using the waste heat captured from the internal combustion engine. This means a bottoming cycle such as an ORC could be used to claim extra ROCs at the same level of support as the advanced ACT.

Biomass Conversion

A new band will be created to account for the interest in converting existing fossil fuel powered generating plant to run on biomass. This would, at present, allow the operator to claim the dedicated biomass tariff (currently 1.5 ROCs). The proposal states that this new tariff would be eligible for 1 ROC from 2013

Enhanced Co-firing

Another new RO band will see support for higher levels of co-firing improved. Under the current arrangements co-firing is eligible for 0.5 ROCs. This new band will allow co-firers that produce greater than 15% of their gross electrical output from biomass to receive an improved rate of 1 ROC.