



Department  
of Energy &  
Climate Change

# CfD Allocation and Solar PV Consultation Workshop

30 May 2014



# Agenda

Item	Timings	Session	Speaker
1	12.30 – 12.35	Introduction	Gareth Redmond
<b><u>CfD Allocation Consultation Session</u></b>			
2	12.35 – 13.05	CfD Budget and next steps  Follow up Q&A	Alon Carmel
3	13.05 – 13.50	Consultation overview <ul style="list-style-type: none"> <li>• Biomass</li> <li>• Scottish Islands</li> <li>• Minima</li> </ul> Panel Q&A to follow	Paul Pippard    Louisa Evans, Alon Carmel, Duncan Gallon, Trevor Raggatt
<b>Break</b> 13.50 – 14.10			
<b><u>FITs and RO Consultation Session</u></b>			
4	14.10 – 14.25	RO consultation	Kieran Power
5	14.25 – 14.30	FITs	Andrew Moxley
6	14.30 – 14.45	Questions on FITs and RO	Andrew Moxley, Kieran Power, Tom Luff, Rosie Love, Trevor Raggatt
7	14:45 – 15:30	Table discussions	All
8	15:30 – 16:00	Feedback & plenary discussion	All
<b>Close</b>			Gareth Redmond



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# Introduction

**Gareth Redmond,  
Office for Renewable Energy Development**



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# CfD Budget Session

**Alon Carmel,  
EMR Strategy and Engagement Team**



# Overview

- 1. The LCF**
- 2. The risks Government needs to manage**
- 3. CfD budget – publications**
- 4. CfD budget – Government considerations**

# 1. The Levy Control Framework (LCF): Stability for investors and protection of the consumer

LCF Upper Limit (2011/12 prices)	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21
	£4.30bn	£4.90bn	£5.60bn	£6.45bn	£7.00bn	£7.60bn

- ▶ The Levy Control Framework (“LCF”) sets out the maximum support for low carbon generation on an annualised basis. Not a budget – no transfer between years.
- ▶ These numbers include: the RO, small scale FITs, FIDeR, CfDs (not Warm Homes Discount, Capacity Market).
- ▶ The LCF includes flexibility – “headroom” 20% - only to be used for unplanned and temporary events



# LCF spend in 2020/21

Modelling by National Grid for the Delivery Plan (2013) showed how expected LCF spend could vary.

Scenario Summary	LCF Spend in 2020/21 £million 2011/12 prices	UK Renewable Electricity %
Scenario 1	£7,000	33%
High Technology Costs	£6,500	30%
Low Technology Costs	£7,600	36%
High Fossil Fuel Prices	£6,500	34%
Low Fossil Fuel Prices	£7,400	31%
High Demand	£7,600	31%
Low Demand	£6,800	35%
High Offshore Deployment	£7,600	36%
Higher Biomass Conversions	£7,500	36%



## 2. Risks and mitigations

Risks of overspend and under-delivery are driven by:

- Deployment risk (*e.g. greater or less deployment of technologies than expected*)
- Wholesale prices
- Load factors
- Electricity demand

Limited mitigations and corrective actions:

- Revise future strike prices
- CfD constrained allocation mechanism
- Revise CfD allocation rules (*e.g. maxima and minima*)
- RO or ss-FiTs constraints
- Pause CfD allocations





## 3. CfD budget publications

### July 2014

- indicative CfD budget allocations released to National Grid for allocation round one in October.
- set out indicative sizing for each group (Group 1 (established) and Group 2 (less established)
- and potentially Group 3 (biomass conversion) and Group 4 (Scottish islands) (subject to consultation);
- The budget allocations that are released to National Grid for delivery years 2014/15 to 2020/21.
- It is possible that some technology groupings will have no budget released in the 2014 allocation round for some or all of the delivery years.

### September 2014

- Legal CfD budget notice as required by the secondary legislation
- May change from the July indicative budget



## 4. CfD budget – Government considerations

- a) How much to release for allocation round 1
- b) How much to keep back for future allocation rounds - Future Government.
- c) How frequent allocation rounds should be
- d) How to manage the risks of over-spending and of under-delivery
- e) How to get value for money and balance long and short term costs for consumers
- f) How to ensure that the CfD allocations are consistent with the State Aid guidelines



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# Questions

**Alon Carmel,  
EMR Strategy and Engagement Team**



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# Electricity Market Reform: Allocation of Contracts for Difference

The use of technology groupings, minima and maxima



# Contents

1. Introduction
2. Overview
3. How to respond
4. Policy proposals and rationale
  - I. Biomass
  - II. Scottish islands
  - III. Minima/Maxima
5. Panel Q&A



# Introduction

The EMR consultation on Competitive Allocation was launched on 16 January 2014 and ran until 12 February 2014.

## The following decisions have been taken:

- Contracts will be allocated through allocation rounds. The period of 'First Come First Served' (FCFS) allocation will not apply.
- the Allocation Framework for the first allocation round will divide the CfD budget into groups including:
  - Group 1 - a group of 'established' technologies (Onshore Wind (>5 MW), Solar Photovoltaic (PV) (>5 MW), Energy from Waste with CHP, Hydro (>5 MW and <50 MW), Landfill Gas and Sewage Gas).
  - Group 2 - a group of 'less established' technologies (Offshore Wind, Wave, Tidal Stream, Advanced Conversion Technologies, Anaerobic Digestion, Dedicated biomass with Combined Heat and Power and Geothermal).
  - The size of the budget in the CfD allocation rounds for Group 1 technologies will be set to ensure competition from the start of the CfD regime. At least the more established technologies will be subject to an auction process from the beginning of CfD allocation.
  - Group 2 technologies will not compete directly with Group 1 (established) technologies.



# Overview

This follow-up consultation proposes:

- I. Biomass conversion plants - to be considered an 'established' technology, and subject to competition if budget is available, but in a separate grouping (Group 3) to ensure competition is maximised in Group 1;
- II. Scottish island onshore wind projects – to be considered a 'less-established' technology in either Group 2 or in a separate grouping (Group 4); and
- III. Minima and Maxima – a single minima of a 100MW for wave and tidal stream technologies (not including tidal lagoon or tidal barrage) across both the RO and CfD schemes for the duration of the first Delivery Plan period.



# Consultation questions

1. Do you agree that biomass conversion should be placed in a separate grouping and subject to immediate competition through a constrained allocation process, if budget is available?
2. Do you believe that onshore wind projects on the Scottish islands should be placed in Group 2 or a separate grouping (Group 4)?
3. Do you agree that wave and tidal stream are the only technologies that warrant a minimum or maximum?





Question Number	Issue	Comments/ Evidence
1	1.0	Please explain and include evidence to support your responses
	1.1 etc	
2	2.0	
	2.1 etc	
3	3.0	
	3.1 etc	
	....	

Please send responses by 10 June to:

[secondarylegislation@decc.gsi.gov.uk](mailto:secondarylegislation@decc.gsi.gov.uk) or [Paul.Pippard@decc.gsi.gov.uk](mailto:Paul.Pippard@decc.gsi.gov.uk)  
with the reference “*URN 14D/137 TG/Min/Max*” in the subject line.



# Biomass conversion

Q1. Do you agree that biomass conversion should be placed in a separate grouping and subject to immediate competition through a constrained allocation process, if budget is available?



# Biomass: Stakeholder comments

## Should be included in the “established” category:

- Independent generators argued that biomass conversion, on the basis that is relatively well understood, has experience of managing international supply chains & developing plant specific infrastructure and is not expected to provide significant cost reductions.
- The strike price for biomass is comparable to those technologies included in the established category, and therefore it would contribute to competitive tensions within that Group (driving value for money).
- uses an established technology and pre-existing installations from a mature industry
- ensures consistency with approach at EU level, as biomass supplies more than 1-3% of EU electricity production and so would be classed as “deployed” under the EEA Guidelines

## Should be considered “less established”

- does not yet demonstrate an established responsive supply chain, and has not realised the benefits of early R&D.
- although there is little further scope for cost reductions in biomass conversion technology, conversions will help to deliver significant reductions in biomass fuel costs for future use.

## Should be treated differently from other biomass technologies within a “transitional” category

- Biomass conversion costs and strike prices fall between the established and less established technologies.
- The inclusion of biomass as an established technology would place it as the highest cost out of these technologies.
- Only available in relatively large projects, as an entire unit of an existing power station must be converted.
- Placing biomass conversion in the established technologies category may limit investment because of the perceived allocation risks.
- supply chain challenges biomass must overcome to become more deployed including limited biomass feedstock (pellet) availability and lack of rail and port infrastructure.

**Other** - should not have access to Government support schemes as it causes high carbon emissions and is less efficient than other renewable technologies



# Biomass Conversion

## Government proposes that biomass conversion

- is an established technology
- should be in a separate technology grouping (Group 3) and subject to immediate competition through a constrained allocation process if budget is available.

## Rationale

- Placing biomass conversion in either the established or less established technologies category may limit investment because of the perceived allocation risks due to its large size and relative strike price.
- Competition could be distorted by lessening the competitive pressure on the other Group 1 technologies which, predominantly, have lower strike prices
- Currently the UK has 580MW of biomass conversion in operation and a further 900MW which is being trialled at Ironbridge. The FID Enabling for Renewables process is expected to deliver a further 1GW of conversion. Biomass supplies more than 1-3% of EU electricity production. This suggests the technology is established whilst such levels of deployment should be sufficient to provide industry will adequate learning such that subsequent projects can be delivered at lower risk and cost.



# Scottish island wind projects

Q2. Do you believe that onshore wind projects on the Scottish islands should be placed in Group 2 or a separate grouping (Group 4)?



# Scottish islands: stakeholder comments

## Should be considered “established”

- they are effectively the same technology as mainland onshore wind
- only if there was a minimum to support transition to competitive allocation at a later date, once the technology had reached sufficient scale and the effects of grid costs reduced or by decoupling the cost of HVDC connection investment.

## Should be considered “less established “

- there may be potential for significant cost reduction.
- it could set a precedent for treatment of non-UK projects, thereby limiting budget for UK projects.
- the higher costs for Scottish islands projects as reflected in existing strike price proposals.

## Should be in a separate “transitional” category

- do not easily fit within the established or less established groupings.
- unique characteristics including:
  - higher cost transmission than other onshore projects
  - possibility of island specific modification to larger turbine design to address weather conditions
  - deployment will always be at a relatively lower volume meaning that potential for cost reduction is less than mature technologies



# Scottish islands

## The Government proposes:

- **to treat wind generation on the Scottish islands as a separate technology grouping from onshore wind located elsewhere in the UK.**
- **is seeking views on an alternative option on including these projects in a separate Group (Group 4).**

## Rationale:

- Scottish island onshore wind projects have significant characteristics which set them apart from projects elsewhere in the UK
- development of onshore wind projects on the Scottish islands will facilitate the construction of transmission links that can deliver a considerable range of longer term benefits and cost savings to the renewables industry in other technologies in the UK and beyond.
- this long-term potential could not be delivered without the provision of support to enable the construction of the necessary transmission links in the short term.
- **The Government notes there are key differences with the other technologies proposed for Group 2 - cost reduction benefits will accrue not only to the projects themselves, but to other technologies and have broader benefits.**



# Minima and Maxima within Technology groupings

Q3: Do you agree that wave and tidal stream are the only technologies that warrant a minimum or maximum?





# Minima/Maxima: Stakeholder comments

## Maxima

**No maxima for any cheaper technology** - to maintain value for money for the consumer

## Minima

**All technologies** - including established technologies - to increase investor confidence

**All “less established” technologies** – to provide certainty to investors to facilitate the high up-front costs; essential as it is not clear how long unconstrained allocation will last; concerns about Offshore wind using up the budget

**Smaller generation sites (5MW to 50MW)** - to ensure diversity of generation away from the current small number of portfolio-generation owners to a wider ownership structure, which in turn could support the development of a wider pool of retail market participants.

**Biomass** - concern that biomass CHP cannot compete with Offshore wind; suggestion that a cap should be introduced on the maximum amount of capacity any biomass conversion project can secure in an allocation round

**Offshore wind** - to increase certainty and ensure deployment. It was recognised that the setting of the budget level for less established technologies could have the same effect.

**ACT** - 1 GW on the basis that the current 300MW prediction for ACT that has been included in other documentation on EMR would not be sufficient to cover projects currently in operation or development that will be supported by the RO



# Wave/Tidal

- Wave and tidal stream technologies are still at the demonstration stage and are not currently competing in the mainstream market.
- The first arrays deployed within the first Delivery Plan period will constitute first-of-a-kind projects.
- Deployment could reach GW-levels in the late 2020s-early 2030s; the Crown Estate have currently leased around 40 sites with a cumulative potential of around 2GW of wave and tidal stream deployment.
- The UK is thought to have around 50% of available wave resource in Europe, and around 25% of European tidal resource, and so deployment in the UK could be a large driver in global trends\*.
- Some developers noted that wave and tidal stream should be treated separately as 'tidal stream' will likely reach scale before 'wave' in the first Delivery Plan period. It was recommended that an additional c.40MW minimum for wave energy could be introduced in parallel with a 100MW minimum for tidal stream.

\*Source: Low Carbon Innovation Coordination Group (2012) 'Technology Innovation Needs Assessment: Marine Energy'



# Maxima/ Minima

## Government proposes:

- **wave and tidal stream technologies are a “less established” technology (Group 2);**
- **a 100MW minimum allocation (applied across the RO and CfD) for the duration of the Delivery plan period;**
- **does not consider that the current pipeline warrants the complexity of two separate reserved allocations for wave energy and tidal stream.**

## Rationale:

- Government considers the widespread use of maxima/minima could undermine the delivery of a cost-effective technology mix and less efficiently use the available budget
- Wave and tidal stream technologies currently have higher costs compared to other technologies and are very unlikely to develop and reach commercial deployment without a protected allocation.
- Government anticipates that learning and economies of scale will allow significant cost reduction for the sector once a certain level of deployment has been reached (c. 200MW).

Note: This approach is considered to be in-line with the European Commission’s recent ‘Communication on Ocean Energy’ highlighting the need to encourage the development of these technologies across Europe.



# Consultation questions

1. Do you agree that biomass conversion should be placed in a separate grouping and subject to immediate competition through a constrained allocation process, if budget is available?
2. Do you believe that onshore wind projects on the Scottish islands should be placed in Group 2 or a separate grouping (Group 4)?
3. Do you agree that wave and tidal stream are the only technologies that warrant a minimum or maximum?



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# Panel Q&A Session

**Louisa Evans, Duncan Gallon, Trevor Raggatt,  
ORED**

**Alon Carmel,  
EMR Strategy and Engagement Team**



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# Break – 20 Minutes



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# Support for Solar PV through the Renewables Obligation

**Kieran Power,  
Office for Renewable Energy Deployment**

# Proposed changes to the Renewables Obligation for >5MW solar PV

Summary of consultation proposals on changes  
to the Renewables Obligation for large-scale  
(>5MW) solar PV capacity

Kieran Power

Head of the Renewables Obligation

DECC Renewable Financial Incentives Team

30 May 2014



# Proposed changes to the Renewables Obligation for >5MW solar PV

## Rationale for proposals

- Large-scale solar PV is deploying faster than expected
  - Delivery Plan range for large solar PV is 2.4-4GW by 2020
  - By end March 2014 – 1.8GW either accredited under the RO or applied
  - Other sources suggests an additional 1.5GW of deployment in 2014/15
  - If not constrained, we could see ~5GW by as early 2017
  - This poses a significant risk to the Levy Control Framework budget
- Government considers it necessary to control cost of large solar PV in the RO

# Proposed changes to the Renewables Obligation for >5MW solar PV

## Summary of consultation proposals

- Consultation opened on 13 May 2014
- Proposes closing RO from 1 April 2015 across Great Britain to solar PV >5MW
  - Applies to both ground and building mounted developments – new capacity
  - Applies to additional capacity added to an existing station if it becomes >5MW
  - Projects of 5MW and below are not affected
  - Projects may accredit as normal before 1 April 2015
- Grace period to protect significant financial commitments made by 13/5/14
  - If station has obtained preliminary accreditation by 13/5/14, or
  - If station meets certain criteria that demonstrate commitments made
  - Projects cannot enter RO after 1/4/15 unless <5MW or have a grace period

# Proposed changes to the Renewables Obligation for >5MW solar PV

## Grace period evidence requirements

- A grid connection offer and acceptance dated no later than 13/5/14
- Letter from network operator estimating/setting connection date on or before 31/3/16
- Relevant planning consents
- Director's Certificate confirming land ownership or lease agreement in place
- Evidence that at least £100K/MWh spent on pre-commissioning costs
- Grace period applications to Ofgem with all forms of evidence by 31 March 2015

# Proposed changes to the Renewables Obligation for >5MW solar PV

## Other options considered but not proposed

- A capacity cap – placing a limit on the amount of new capacity in the RO
- Supplier cap – limiting the proportion of ROCs that suppliers can present from >5MW solar PV
- A solar-specific banding review – relies on evidential triggers, which are currently not apparent



# Proposed changes to the Renewables Obligation for >5MW solar PV

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## Next steps

- On-going stakeholder engagement throughout the consultation period
- Email for consultation responses [solarpv.consultation@decc.gsi.gov.uk](mailto:solarpv.consultation@decc.gsi.gov.uk)
- Closing date 7 July 2014



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# Proposed Changes to the Feed in Tariff

Andrew Moxley



# Contents

1. Introduction
2. Update on Non Financial Barriers
3. Proposal
4. How to respond



# Introduction

We are aiming to increase deployment of building mounted PV.

To do this we are working to remove the noon financial barriers to deployment and proposing to create a new building mounted degression band.





# Update on Non Financial Barriers

- ROO-FIT application process
- Planning permission
- Landlords and Tenants
- Transferability



# Proposal

Levels of quarterly deployment (MW) necessary to trigger degeneration for current degeneration band	Proposed levels of quarterly deployment (MW) necessary to trigger degeneration for new degeneration bands		Degeneration triggered
	Stand-Alone	Other than stand-alone, above 50kW	
>50kW and all Stand-Alone			
Not more than 50MW	Not more than 12.5MW	Not more than 37.5MW	0%
More than 50MW but not more than 100MW	More than 12.5MW but not more than 25MW	More than 37.5 but not more than 75MW	3.5%
More than 100MW but not more than 150MW	More than 25MW but not more than 37.5MW	More than 75MW but not more than 112.5MW	7%
More than 150MW but not more than 200MW	More than 37.5MW but not more than 50MW	More than 112.5MW but not more than 150MW	14%
More than 200MW	More than 50MW	More than 150MW	28%



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# How to respond

Send responses to [SolarPV.Consultation@decc.gsi.gov.uk](mailto:SolarPV.Consultation@decc.gsi.gov.uk)

Please provide evidence to support your answers.

1	Consultation Questions
1	Do you agree with our projections for the amount of new solar PV capacity likely to deploy under the RO by 1 April 2015, and our deployment assumptions for 2015/16 and 2016/17? Please give reasons and provide evidence to support your answer.
2	Do you agree with the proposal to close the RO early to solar PV projects above 5MW in scale? Please give reasons for your answer.
3	Do you agree with the proposal not to close the RO to solar PV projects of 5MW and below? Please give reasons and provide evidence to support your answer.
4	Do you agree with the proposed grace periods and the date from which eligibility would apply, i.e. 1 May 2014? Please give reasons and provide evidence to support your answer.
5	Do you agree with the proposed forms of evidence to demonstrate eligibility for the grace period? Please give reasons and provide evidence to support your answer, specifying the form(s) of evidence to which each comment relates
6	Do you agree with the proposals not to introduce a capacity or supplier cap in the RO on solar PV projects above 5MW in scale? If you think that either a capacity or supplier cap would be a more effective means of controlling costs from this technology, or whether you would prefer a cap, please indicate which along with your rationale and any supporting evidence.
7	Do you agree with the proposal not to undertake a banding review on the solar PV bands with respect to projects above 5MW in scale? If you think that a banding review would be a more effective means of controlling costs from this technology, please give reasons and provide evidence to support your answer.
8	Do you agree with the proposals not to change the conditions for a banding review and not to exclude new large-scale solar PV from our grandfathering policy? Please give reasons and provide evidence to support your answer, specifying to which proposal your comment relates.
9	Do you agree that creating new degression bands as suggested will encourage more building-mounted solar PV deployment and allow continued steady deployment of stand-alone solar PV installations? Please provide evidence to support your answer.
10	Do you agree that using the 'stand-alone'/'other than stand-alone' descriptions as the basis for the new degression bands will achieve the aim of increasing deployment of building-mounted solar PV? Please provide evidence to support your answer.
11	Do you agree that the proposed split for the degression triggers for the stand-alone and >50kW other than stand-alone bands is appropriate? Please provide evidence to support your answer.
12	Do you agree with the proposed dates from which the new degression bands could apply (for both October 2014 and January 2015)? Please give reasons and provide evidence to support your answer.



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# Table discussion session

Andrew Moxley