

# Sustainable Biomass in the UK

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**Monday, 29<sup>th</sup> November 2010**

# Agenda

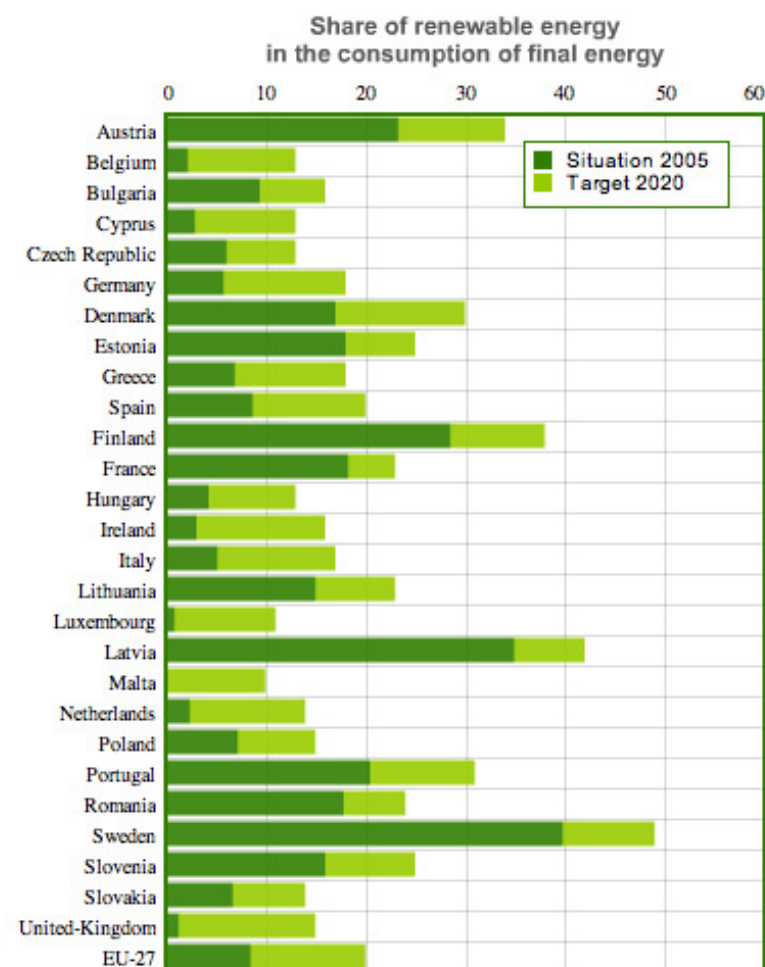


1. Drivers for UK bioenergy & the need for sustainability criteria
2. Sustainability Proposals in the UK's Consultation for solid Biomass & Biogas used for power generation:
  - 60% GHG emissions target
  - Restrictions on use of materials from certain land types
  - Supply of general data on the biomass used
3. Next steps & timescales for decisions and implementation

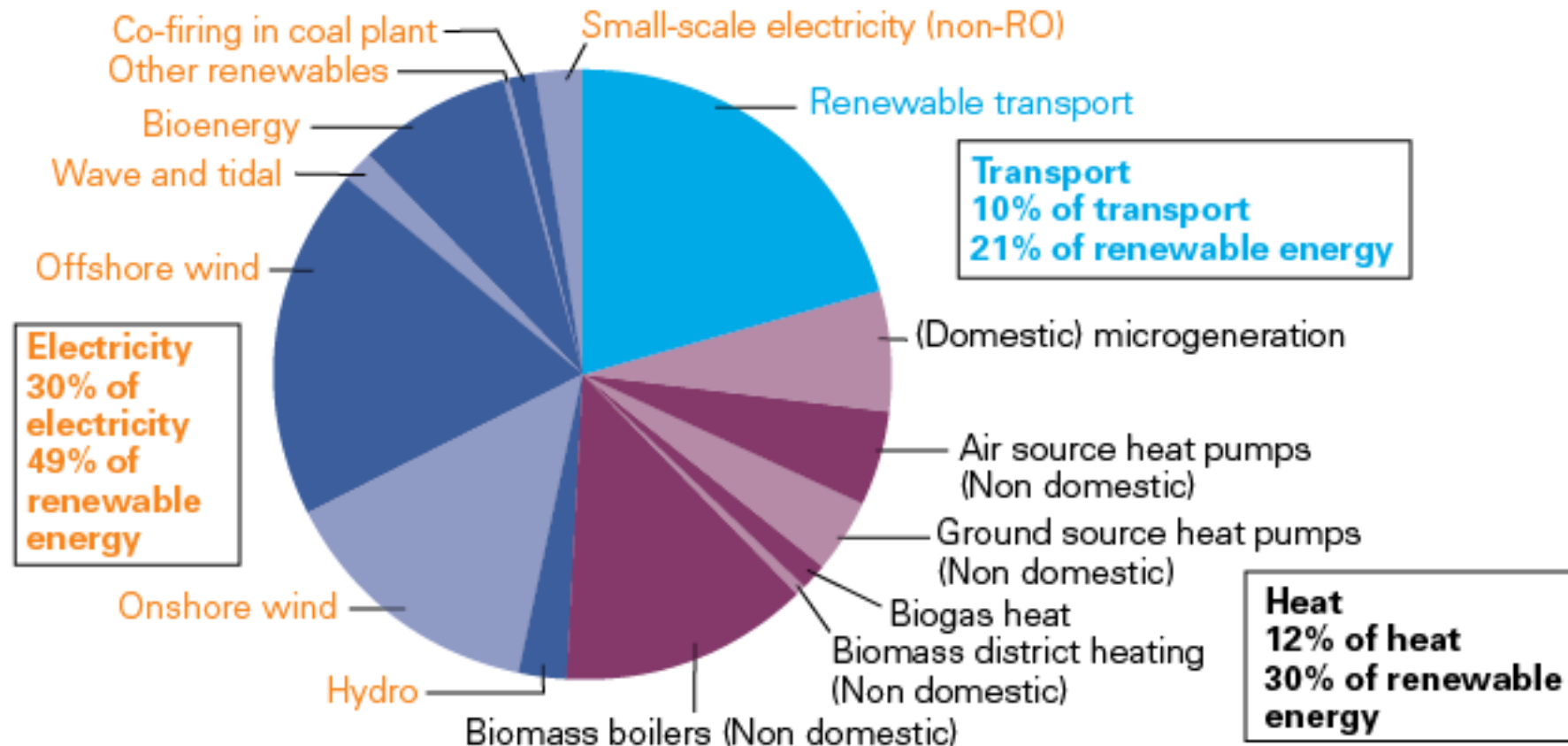


# The individual EU Targets

Country		Share of renewable energy	
		2005	2020
AT	Austria	23.3	34.0
BE	Belgium	2.2	13.0
BG	Bulgaria	9.4	16.0
CY	Cyprus	2.9	13.0
CZ	Czech Republic	6.1	13.0
DE	Germany	5.8	18.0
DK	Denmark	17.0	30.0
EE	Estonia	18.0	25.0
EL	Greece	6.9	18.0
ES	Spain	8.7	20.0
FI	Finland	28.5	38.0
FR	France	18.3	23.0
HU	Hungary	4.3	13.0
IE	Ireland	3.1	16.0
IT	Italy	5.2	17.0
LT	Lithuania	15.0	23.0
LU	Luxembourg	0.9	11.0
LV	Latvia	34.9	42.0
MT	Malta	0.0	10.0
NL	Netherlands	2.4	14.0
PL	Poland	7.2	15.0
PT	Portugal	20.5	31.0
RO	Romania	17.8	24.0
SE	Sweden	39.8	49.0
SI	Slovenia	16.0	25.0
SK	Slovakia	6.7	14.0
UK	United Kingdom	1.3	15.0
<b>EU-27</b>	<b>EU 27</b>	<b>8.5</b>	<b>20.0</b>



# UK 'lead scenario' for 15%



Source: DECC analysis based on Redpoint/Trilemma (2009), Element/Pöyry (2009) and Nera (2009) and DfT internal analysis

# Benefits to the UK



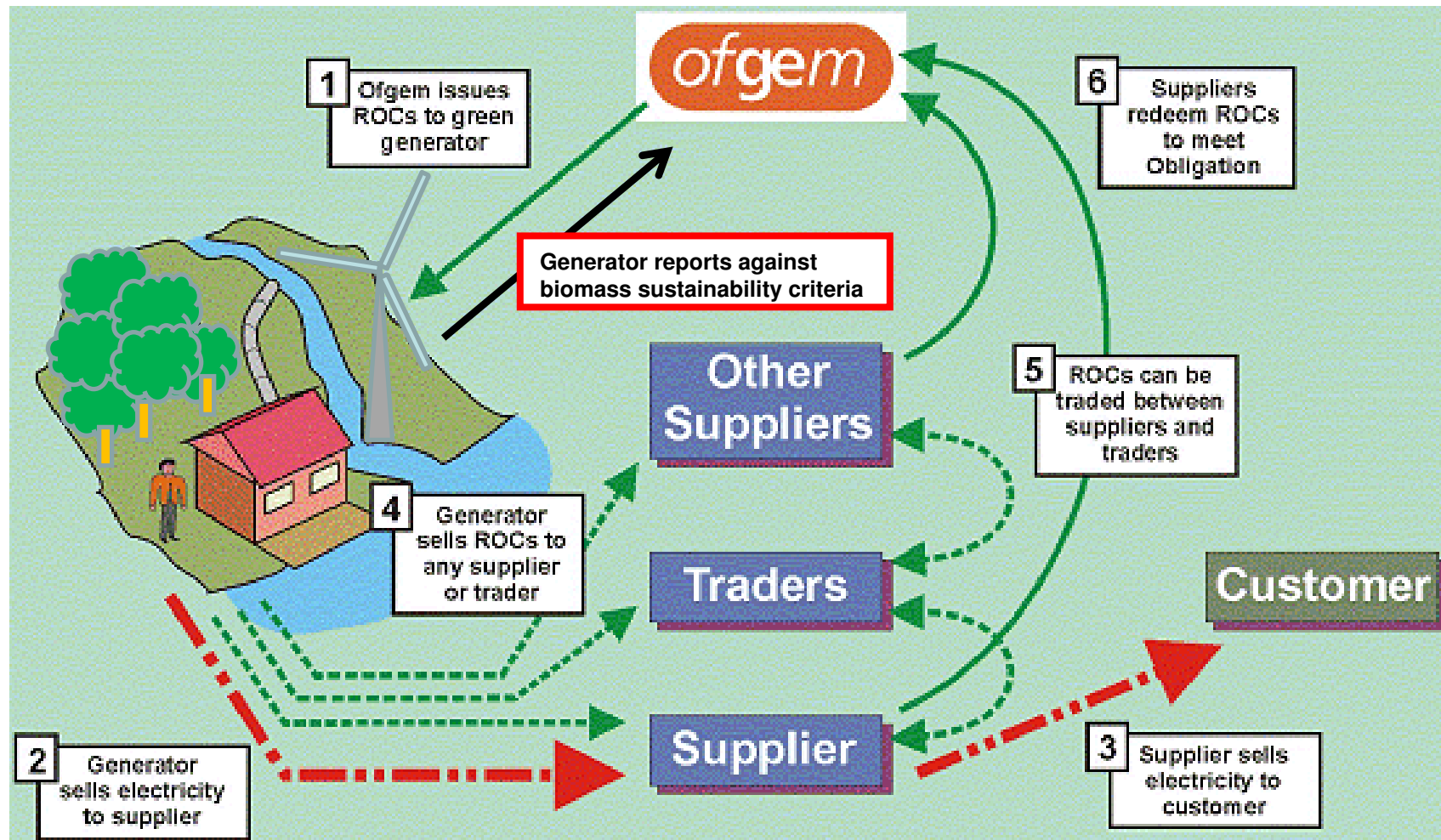
- Bioenergy can be very **cost-effective** compared to other renewables – particularly landfill/sewage gas and biomass co-firing
- Bioenergy is **very flexible** – it can be used to generate heat, electricity – or processed/fermented to produce transport fuel
- If grown, harvested, processed and transported with due consideration of sustainability can be **very low carbon**, and support the UK's actions to address dangerous climate change
- Where the biomass is waste diverted from landfill it can even be **negative net carbon emissions** (i.e. a carbon sink!)
- Bioenergy could deliver **around half** the UK's 2020 renewables target, this could require **tens of millions** of tonnes of feedstocks
- Therefore it is *essential* that the biomass used for UK energy generation – **whether domestic or imported** – is sustainable

# Energy Security & Jobs

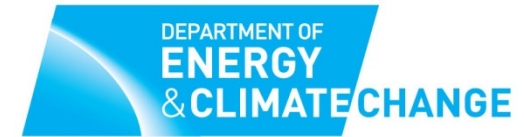


- Biomass for energy is '**dispatchable**' – can be turned off & on, up & down, to match supply with demand
- Biomass feedstocks can be sourced from a **diverse range of plant and animal materials** (both domestic and imports), and converted to energy using a wide range of centralised and decentralised technologies
- Greater diversity means **greater energy security**, particular when using domestic feedstocks including wastes
- Opportunities across the supply chain:
  - **UK farm diversification** and sustainable forest management
  - New markets to drive **better management of UK wastes**
  - **Feedstock processing, distribution and supply**
  - **Manufacturing, plant design and installation**

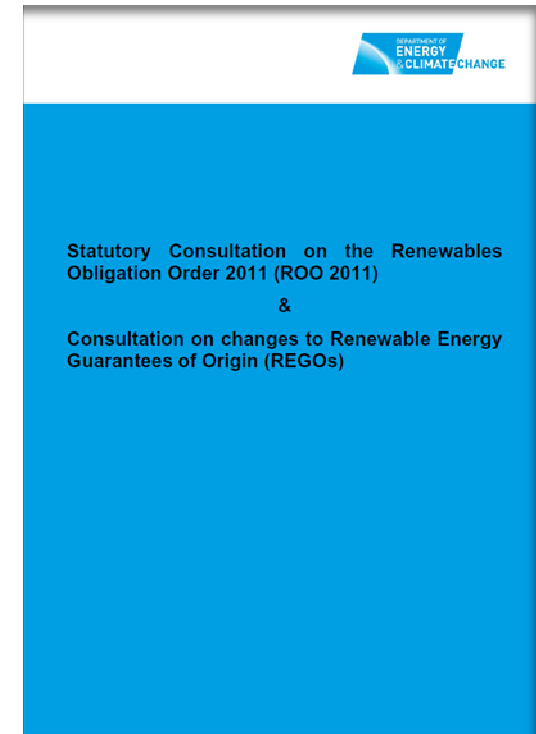
# Renewables Obligation



# ROO Consultation



- Renewables Obligation (RO) is the main UK support mechanism for renewable electricity
- Worth around £1 billion per year in support to the renewables industry
- 3 month consultation closed 19<sup>th</sup> October
- Sets out proposal to introduce mandatory sustainability criteria for biomass & bioliquids
- Also proposes that the responsibility for reporting – and meeting - criteria would fall on the power generators as part of the process to receive support under the RO



<http://www.decc.gov.uk/assets/decc/Consultations/Renewables%20Obligation/261-statutory-con-renewables-obligation.pdf>

# UK Solid & Gaseous Biomass Sustainability Criteria

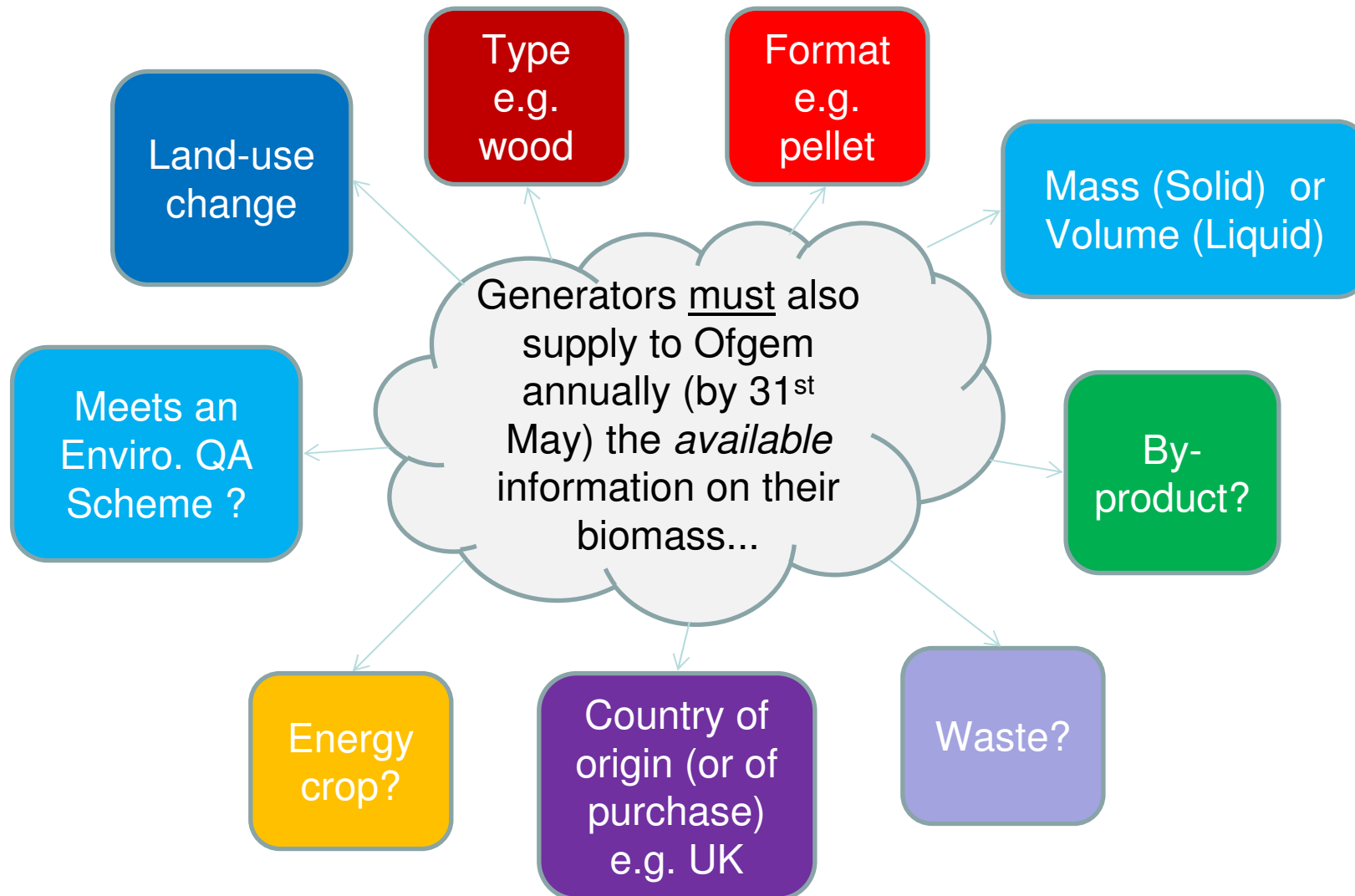


The proposals set in the ROO 2011 consultation were:

- **Minimum 60% GHG emission** saving relative to fossil fuel (equates to **285 kg CO<sub>2</sub>/MWh** or lower)
- **General restrictions** on use of raw materials from land important on carbon or biodiversity grounds e.g. Primary forest, Peatlands,)
- Supply **accurate, factual data** on the biomass used
- Requirement for generators to report on these **from April 2011**
- For generators of 1MWe or above, in April 2013, **receipt of ROCs would be formally linked** to meeting criteria; i.e. **BINDING**
- Biomass & biogas made from **waste or landfill/sewage gas** to be **excluded** from requirements
- UK Government response (final decisions on above) is due shortly.



# Factual information



# Next steps



- **Year End:** Government Response published (final decisions)
- **1<sup>st</sup> April 2011:** Proposed introduction of requirement to annually report against biomass sustainability criteria
- **During 2011:** Proposed development of a GHG lifecycle tool to support the generators report against the 60% savings target
- **31<sup>st</sup> May 2012:** Date when first set of sustainability reports from generators expected to be due (covering biomass use April 2011 – March 2012.)
- **1<sup>st</sup> April 2013:** Proposed start for the formal link to ROC eligibility for the use of solid & gaseous biomass

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