

# Update on biomethane sustainability

Biomethane Day, 15<sup>th</sup>/ 16<sup>th</sup> June 2015,  
National Motorcycle Museum, Birmingham

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# Legislative history of biomass sustainability

- Renewable Energy Directive (2009) introduces sustainability criteria for biofuels for transport and bioliquids for other sectors (electricity, heating and cooling)
- It does not specify criteria for solid and gaseous fuels in electricity, heating and cooling
- [EU Commission report \(2010\)](#):
  - Member states may introduce own criteria and legislation
  - Non-binding recommendations on the development of sustainability schemes
  - Only to larger energy producers (> 1 MWth/1MWe)

# UK: solid and gaseous biomass for renewable power and heat

Renewable power	Sustainability
RO	✓ - linked to payments from 1 <sup>st</sup> October 2015 (subject to approval of the RO order)
CfD	✓ - dealt with by individual contracts
FIT	X

Renewable heat	Sustainability
RHI	✓ - Biogas heat and biomethane from 5 <sup>th</sup> October 2015

# RHI biomethane sustainability

- Legislation setting up sustainability criteria in RHI made in February 2015
- Criteria modelled on those used already in Renewables Obligation. Will also apply to biogas combustion and biomass boilers
- Apply to biomethane injected from **5 October 2015** – regardless of when the project was registered on RHI
- Failure to comply will lead to sanctions, including non-payment of tariffs and (in extreme circumstances) exclusion from the scheme

# The criteria

- **Min GHG savings of 60%** against the EU fossil-comparator; GHG emissions  $\leq 34.8$  gCO<sub>2</sub>e/MJ
  - Participants can do their own calculations against the methodology or use an official calculator ([B2C2](#))
- **Land criteria** – demonstrating the feedstock came from pre-existing agricultural land should be sufficient
- Quarterly declarations to Ofgem
- Annual independent report to verify the above (to ISAE 3000):
  - Biogas plants > 1 MWth and all biomethane plants
- Only apply to future fuel consignments
- Not grandfathered

# Consignment

- Based on the sustainability characteristics of the material(s) if they are of the same:
  - Feedstock type
  - Country of origin
  - Fuel classification (waste, residue, product, etc)
  - Compliance with the land criteria
  - Compliance with the GHG criteria
- A consignment of biogas is the quantity of biogas attributable to the consignment of feedstock from which that biogas was made (RO biogas apportioning tool).
- FMS questionnaire

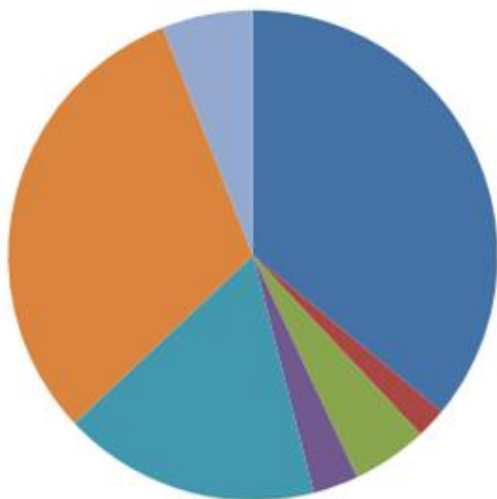
# Reporting requirements by feedstocks

Category	Land Criteria	GHG Criteria
Waste or biomass wholly derived from waste	Exempt	Exempt
Excreta produced by animals	Exempt	Exempt
Processing residues	Exempt	Emissions from process of collection
Residues from agriculture	Reporting required	Emissions from process of collection
Product or co-products	Reporting required	Full life-cycle emissions



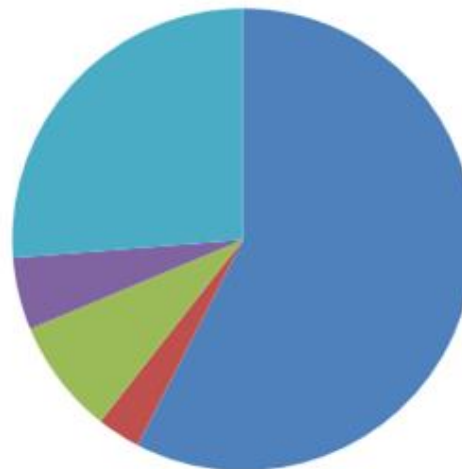
# GHG life cycle emissions (Source: NNFCC presentation, February 2015)

## Maize : Biomethane



- Cultivation
- Harvest
- Feedstock Conversion
- Feedstock Transport
- Biogas Production
- Biomethane Production
- Injection

## Maize : Biogas, Electricity



- Cultivation
- Harvest
- Feedstock Conversion
- Feedstock Transport
- Biogas Production

# Outstanding issues / RHI sustainability

- GHG methodology complex and calculator not well-suited to AD. DECC commissioned updates, but this has not fixed everything
- Many detailed process questions still to be worked through with Ofgem – draft guidance should be made available in July
- GHG limit is tight, especially if 100% crop
- Possibility that criteria will be tightened further – this would most likely affect all plants (ie would not be grandfathered)



## Some AD specific challenges

- Very wide range of feedstocks, potentially very bureaucratic. Farmers reluctant to provide level of detail required, particularly if developer buying on the spot market
- Every 'consignment' has to pass the criteria. A mixed plant using waste and crop cannot bank a credit from the waste by averaging out GHG savings
- GHG credit for digestate based on energy content, not GHG saved by displacing mineral fertilisers
- Digestate application techniques not recognised

# Our asks to Government

- **Suitable** and **proportionate** to the risks posed by AD e.g. by allowing averaging of different consignments
- Recognition of GHG savings from digestate displacement of mineral fertilisers
- Simplifying the reporting requirements
- Pragmatic approach to enforcement in the first 6-12 months by Ofgem
- Future changes to sustainability criteria need to be evidence based
- Informed, stable and proportionate position on crop feedstocks
- If sustainability requirements introduced under the FIT scheme, only to new plants and light touch approach

# Thank you

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