



# Supporting Renewable Heating Projects: Experience with EUROGIA and National Schemes

Tapping the Potential of Renewable Heating and Cooling, 16<sup>th</sup> September 2013

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## Heat is the single biggest reason we use energy in our society

- Around 80% of all the heat used in the UK – in homes, businesses and industry – comes from fossil fuels
- Around a third of the UK's carbon emissions come from the energy used to produce heat
- 44% of final energy consumed in UK is used to generate heat for domestic, commercial and industrial purposes
- As a country, we spend £32 billion a year on heating

# HEAT POLICY

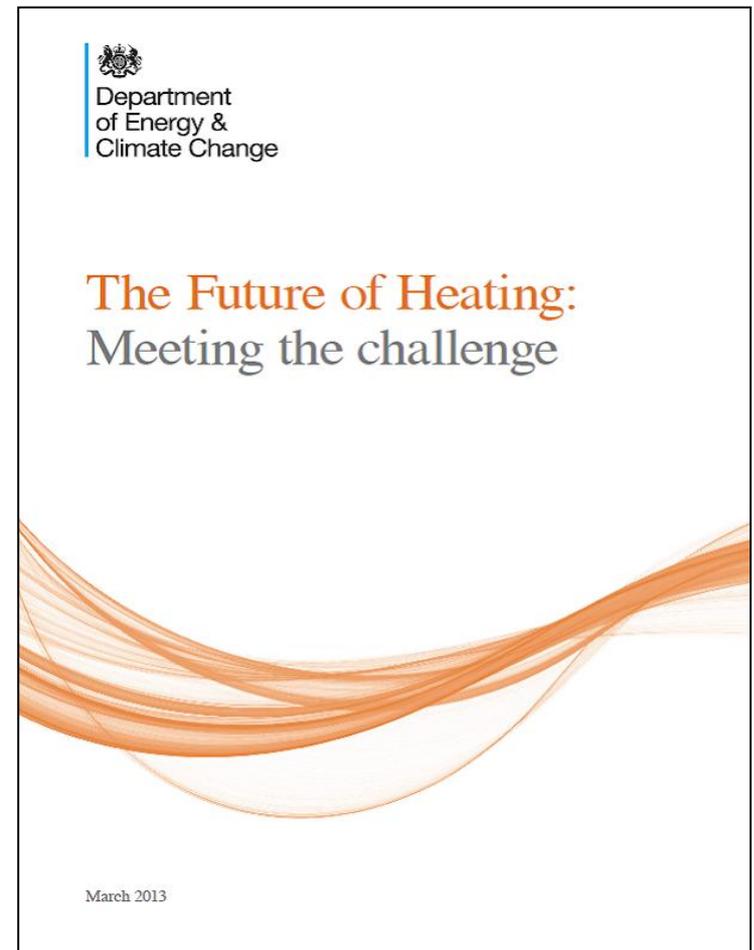
## The Future of Heating: Meeting the Challenge



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## Policy framework published March 2013

- Follows Strategic Framework for Heat (March 2013)
- Domestic and business sectors (heat for space and water)
- Industrial sector (process heat)
- District heating and infrastructure





### 3 Stages



Technology Strategy Board  
Driving Innovation

1. Project outline submitted to EUROGIA+ Secretariat
  - i. Feedback from EUROGIA Technical Committee and from Eurogia-UK
2. Full project proposal submitted to EUROGIA+ Secretariat
  - i. Award of E+ Label
3. Submission of supplementary documents to Eurogia-UK
  - i. Funding decision within 4-6 weeks



## Key Dates



Technology Strategy Board  
Driving Innovation

- Launched in July 2013
- Next submission deadline: 15<sup>th</sup> November, 2013
- First bids received last week

[www.gov.uk/decc/eurogia](http://www.gov.uk/decc/eurogia)



What policies does the UK have to encourage development of renewable heating?



# RHI is world's first long-term financial support programme for renewable heat

- RHI for non-domestic properties provides financial incentives to install renewable heating in place of fossil fuels (launched Nov 2011)
- RHPP scheme provides grants to help install renewable heat technologies in **domestic** properties (launched August 2011)
- Plans for **domestic** RHI announced in July 2013, with scheme intended to be open for payments in Spring 2014



## Financial incentives for renewable heat

- Provides subsidy, payable for 20 years, to eligible, non-domestic renewable heat generators based in GB
  - Currently open to non-domestic sector: includes industrial, commercial, public sector and not-for-profit organisations
  - Also available to producers of biomethane
  - This includes businesses, hospitals and schools, as well as district heating schemes
- All applications are subject to the detailed scheme rules

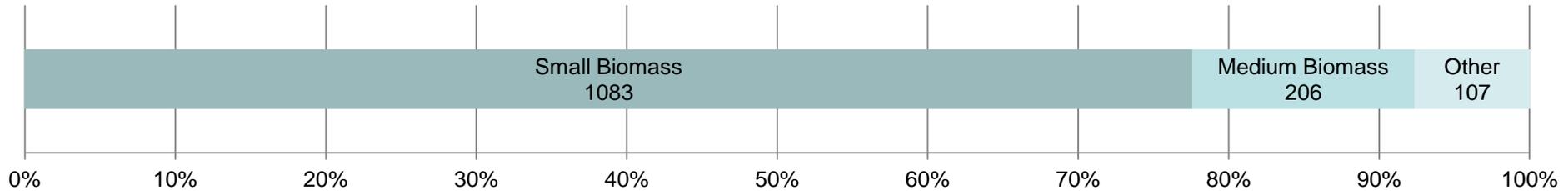
# RENEWABLE HEAT INCENTIVE

## Non Domestic Scheme

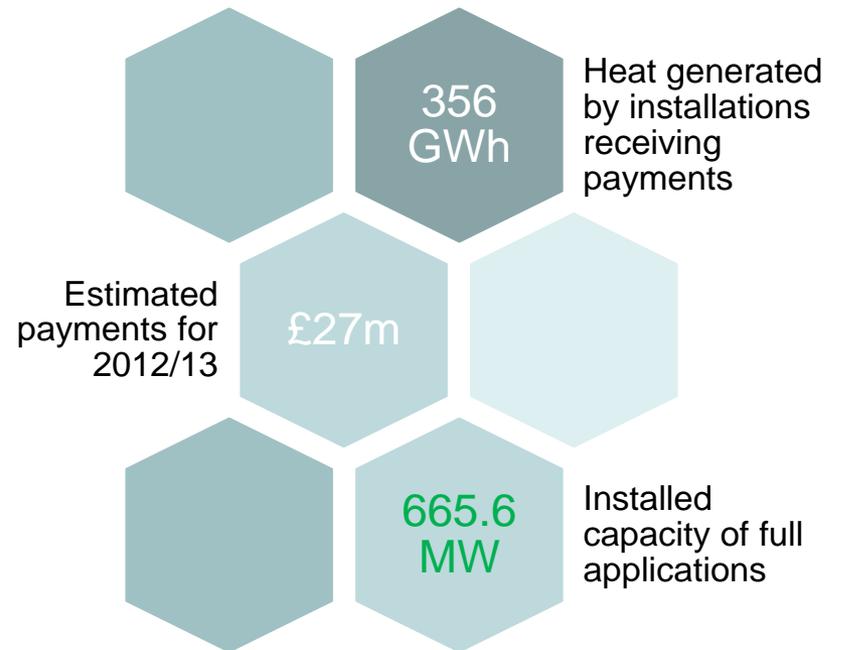
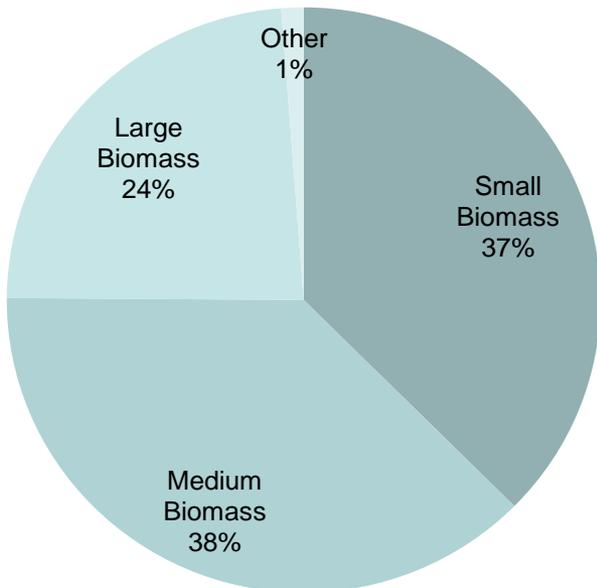


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### Number of installations receiving payment



### Capacity of Accredited Applications



# RENEWABLE HEAT INCENTIVE

## Non Domestic Scheme Technology and Tariffs



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Technology		Current tariffs (pence per kWh for heat generated)
Commercial biomass	Small (up to 200kW)	Tier 1: 8.6 Tier 2: 2.2
	Medium (up to 1MW)	Tier 1: 5.0 Tier 2: 2.1
	Large (1MW and above)	1.0
Ground Source Heat Pumps	Small (up to 100kW)	4.8
	Large (100kW and above)	3.5
Solar Thermal (up to 200kW)		9.2
Biomethane injection (all scales) and biogas combustion (up to 200kW)		7.3



## Grant to help install renewable heating systems in domestic properties

- Domestic Household Scheme:
  - Cash back vouchers for householders in England, Scotland and Wales (mainly off gas grid)
- Social Landlord Competitions:
  - Registered social landlords can bid for money to support installation of cost-effective renewable heating systems in social housing stock – particular focus on off-gas grid areas

# RENEWABLE HEAT PREMIUM PAYMENTS

## RHPP scheme for Domestic Properties



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## RHPP support for households

- Phase 1 (Aug 2011 – Mar 2012) supported over 6,000 installations
- Phase 2 (Apr 2012 – Mar 2013) expected to support more than 11,000 installations
- Extension to RHPP 2 announced March 2013, increased tariffs announced in May
- RHPP recipients still eligible to apply for domestic RHI scheme

### Voucher Levels

ASHP

• **£1,300**

Biomass

• **£2,000**

GSHP

• **£2,300**

Solar Thermal

• **£600**



## Domestic RHI announcement 12<sup>th</sup> July

- Tariff to be paid to domestic owners of renewable heating equipment
- Payments to begin in Spring 2014
- Annual payments will be worked out by multiplying the expected annual heat use by the technology's tariff rate
- More details on how to apply will be published soon



## Eligibility criteria

- Scheme will be made available to homeowners, private and social landlords, third party owners of heating systems and people who build their own homes
- Anyone who has installed a renewable heat technology since 15 July 2009 and meets the scheme eligibility criteria will be able to join the scheme
- Payments will be made on a quarterly basis for 7 years, with the tariff level reflecting expected costs of renewable heat generation over 20 year period

# RENEWABLE HEAT INCENTIVE

## Domestic Scheme



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### Biomass boilers



- Biomass-only boilers (log, chip, pellet), and pellet stoves with back boilers
- Need to meet air quality standards
- Fuel must meet sustainability standards

12.2p/kWh

### Air source heat pumps



Minimum performance standard (SPF) of 2.5 – in line with RES Directive

7.3p/kWh

### Ground source heat pumps



Minimum performance standard (SPF) of 2.5 – in line with RES Directive

18.8p/kWh

### Solar thermal



- Evacuated tube and flat plate
- Can receive RHI for solar thermal + another renewable tech

At least 19.2p/kWh\*

# RENEWABLE HEAT INCENTIVE

## Domestic Scheme



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**A semi- detached house off-gas grid in a rural location with a heat demand of 10,000kWh/year could get:**

- **£500/year** in RHI payments for generating heat with an air source heat pump (**tariff is 7.3p/kWh**), with a small on-going fuel and operating cost saving
- **£1,300/year** for a biomass boiler (**tariff is 12.2p/kWh**), with approximately £100/year of fuel and operating cost savings
- **£1,400/year** for a ground source heat pump (**tariff is 18.8p/kWh**) with approximately £120/year of fuel and operating cost savings



**A detached house off-gas grid in a rural location with a heat demand of 18,000kWh/year could get:**

- **£800/year** in RHI payments for generating heat with an air source heat pump (**tariff is 7.3p/kWh**)
- **£2,200/year** for a biomass boiler (**tariff is 12.2p/kWh**) with approximately £100/year of fuel and operating cost savings
- **£2,400/year** for a ground source heat pump (**tariff is 18.8p/kWh**) with over £150/year of fuel and operating cost savings



# Questions?

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