

# How the 'Renewable Heat Incentive' can work for you



## Speaker

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Department  
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# DECC Support for Renewable Energy

Patrick Allcorn

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# Renewable Energy Targets for Energy Use

## Ambitious targets to reduce emissions

### Climate Change Act 2008 set ambitious targets:

- 80% reduction in UK's GGE by 2050
- 34% reduction by 2020
- Our buildings will need to be virtually zero carbon by 2050

### Under the EU Renewable Energy Directive 2009 we have a binding commitment to increase renewable energy use to 15% by 2020

- 4.2% of UK energy consumption came from renewable resources in 2012, up from 3.8% in 2011
- UK's updated renewable energy roadmap (November 2013) represents our plan of action to drive renewables deployment and reduce costs
- Planned policies will reduce UK's sensitivity to spikes in global oil, gas and coal prices by 30% in 2020 and 60% in 2050



# Renewable Energy

## Strategic importance of energy in the UK

### UK needs to replace ageing energy infrastructure, at least cost

- We are driving growth in low carbon technologies
- Since 2010, £29bn of new renewables investment announced, supporting 30,000 jobs
- EMR designed to make UK electricity market amongst the most attractive in the world for inward investment
- Ernst & Young rate the UK as one of the top six worldwide destinations to invest in renewable energy

### Short Term – Stimulus effect from infrastructure development

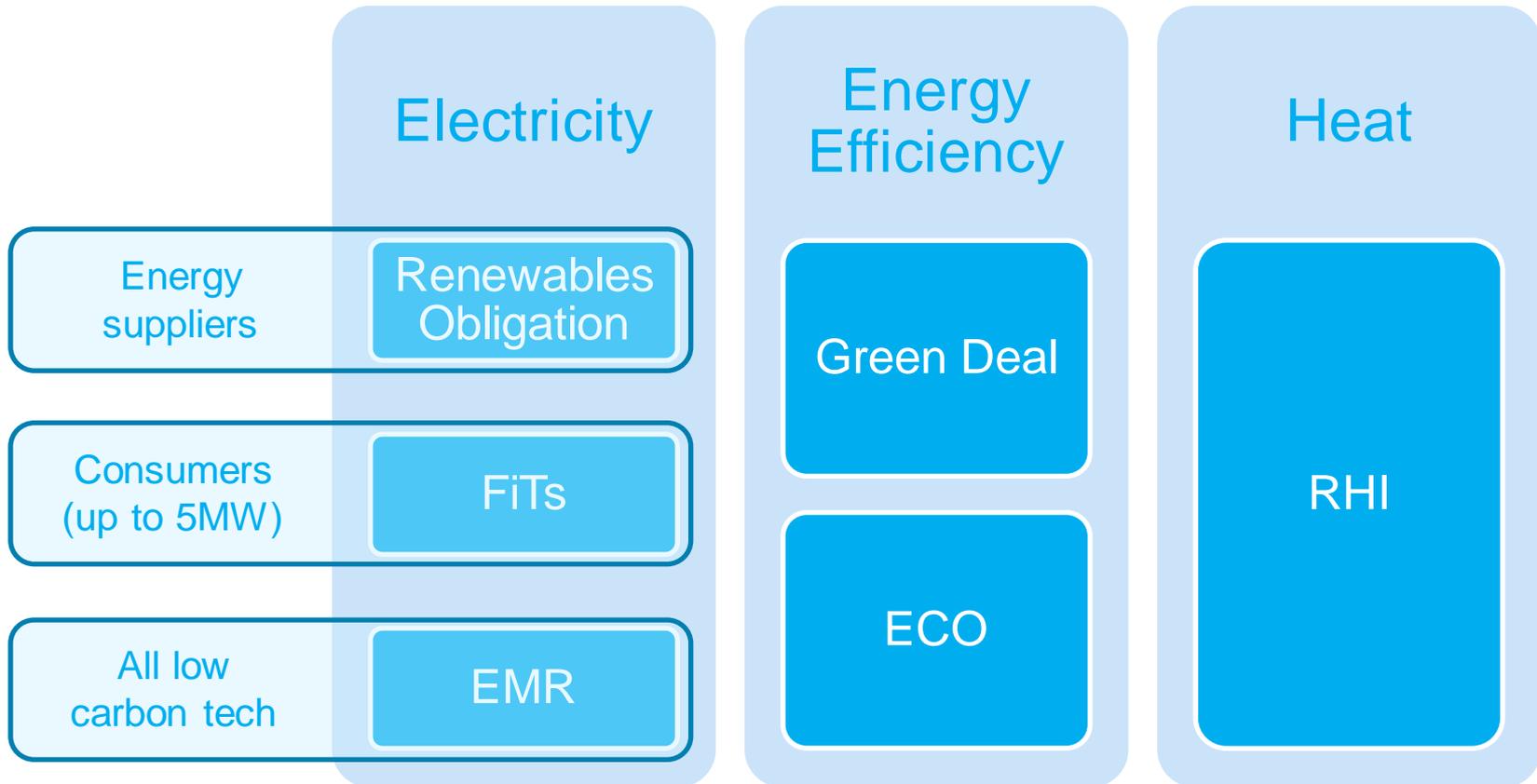
- Huge scale infrastructure investment - £28bn near-term projects already through the planning pipeline

### Long term – enhancing productivity, competitiveness and resilience

- Energy efficiency improves productivity of UK economy, offsetting cost of low carbon techs
- Decreases reliance on fossil fuels and related price spikes
- Building a competitive global advantage in industries including offshore wind, marine & CCS



## DECC Renewable Programmes





# Renewable Energy

## Support for Renewable Electricity

### Electricity

- The UK has vast and varied renewable energy resources, including some of the best wind and tidal sources in Europe.
- The Committee on Climate Change's Renewable Energy Review stated that in May 2011 there is scope for the penetration of renewable energy to reach 30% of all energy consumed in the UK by 2030.

#### Feed in Tariff scheme

- Supports renewable electricity at the commercial scale

#### Renewables Obligation (RO)

- Supports renewable electricity at the commercial scale

#### Electricity Market Reform (EMR)

- Will provide future support for all low carbon technologies, including renewable energy



# Feed-in Tariff scheme

**A financial support scheme for eligible low-carbon electricity technologies, aimed at small-scale installations (less than 5 MW)**

- A range of technologies are supported by this scheme including solar PV, hydro and wind
- The FITs scheme has been a success since its launch in April 2010, with over 500,000 installations (2.4GW capacity) registered on either the Central Feed-in Tariff Register, MCS, or both, by the end of November 2013.
- Of these around 99% are solar PV installations
- Key to incentivising small scale supplies of low carbon energy generation
- It is also helping to stimulate local economies, including businesses, supply chains and home owners



# Renewables Obligation

## Obligation on electricity suppliers to source a specific and annually increasing proportion of electricity from eligible renewable sources

- RO eligible sources include wind energy, wave and tidal energy, landfill gas, sewage gas, geothermal, hydro, solar PV, energy from waste, biomass, energy crops and anaerobic digestion
- The proportion is measured against total electricity sales – energy suppliers must pay a penalty if this proportion is not reached
- Since the introduction of the RO in 2002, generation from wind has increased on average by one third each year
- The Renewables Obligation Certificates (ROCS) will help deliver £20 - £25 billion of additional investment in renewable electricity between 2013 and 2017



# Energy Market Reform

**EMR will provide future support for all low carbon technologies, including renewable energy (replacing RO in 2017)**

- Will offer long term contracts for low carbon energy:
  - Secure price at which companies can sell electricity to consumers
  - Investor confidence and more certainty for lending, due to less risk
- Strike prices for renewable technologies published in December 2013 – will enable technology mix that is value for money for consumers
- Strike prices will enable over 30% of Britain's electricity to come from renewable energy sources by 2020.
- Ultimately we want to move to a market-led process when conditions allow



# Green Deal and ECO

**UK energy prices are rising – global energy prices are the main driver behind increases in household energy bills in the UK**

- The **Green Deal**, with **ECO**, is an ambitious and long-term initiative designed to upgrade the energy efficiency of our homes
- ECO operates alongside the Green Deal to support energy saving improvements in vulnerable and low-income households and those living in harder to treat properties, such as solid walled properties.
- ECO is a statutory obligation placed on the main energy suppliers to meet a series of targets relating to carbon savings and reducing home heating costs up to 2015.
- On 2 December 2013, Government announced proposals to extend the scheme to 2017 – consultation on these proposals this year



# Renewable Energy

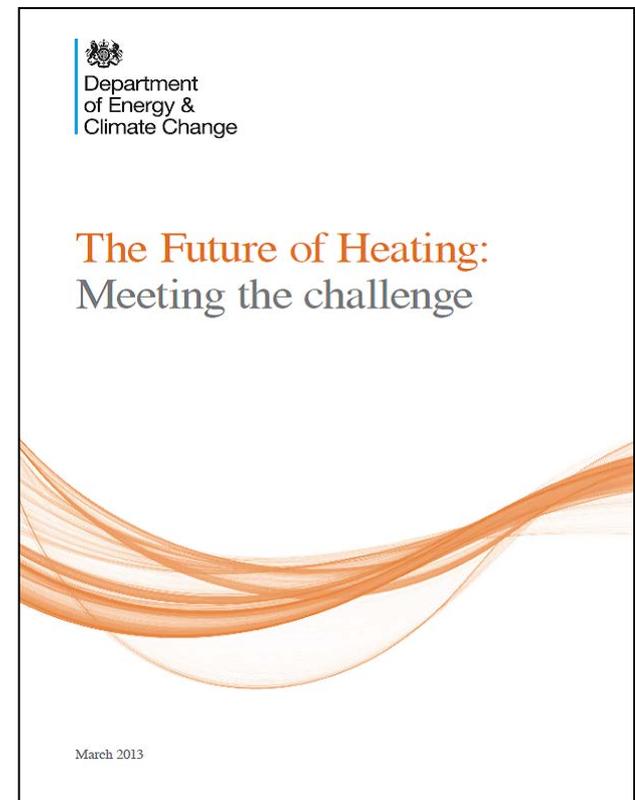
## Support for Renewable Heat

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

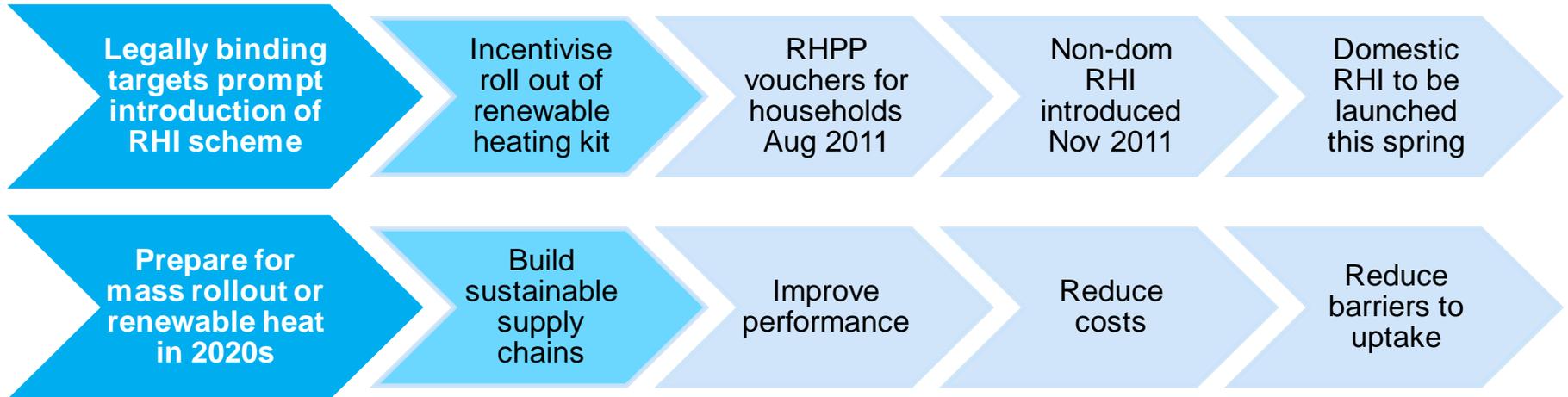
- Over 70% of all the heat used in the UK – in homes, businesses and industry – comes from gas, a fossil fuel
- Around a third of the UK's carbon emissions come from the energy used to produce heat
- 44% of final energy consumed in UK is used to generate heat for domestic, commercial and industrial purposes
- As a country, we spend £32 billion a year on heating

# Policy framework – March 2013

- Follows Strategic Framework for Heat (March 2013)
- Covers domestic and business sectors (heat for space and water)
- Also the industrial sector (process heat)
- Shows an on-going financial commitment to encourage renewable heat



# RHI is DECC's principal mechanism for decarbonising heat in buildings



- Two streams to the RHI – domestic and non-domestic
- Renewable Heat Premium Payment scheme introduced to bridge gap until domestic scheme could be launched

# Renewable Energy

## Domestic and Non-domestic schemes

### Key features of the RHI

	Domestic	Non-domestic
Eligibility	Property must have domestic EPC - single domestic dwelling. Home owners, social and private landlords and self builders	Commercial, industrial, public sector, not for profit and district heating for multiple homes
Payment period	Payments made over 7 years (to compensate for 20 years of benefits)	Payments made over 20 years
Measuring usage	Deemed renewable heat output (metered if back up system or second home)	Eligible heat use is metered on actual generation or use

# The Non-domestic RHI

- Who is eligible for the non-domestic RHI?

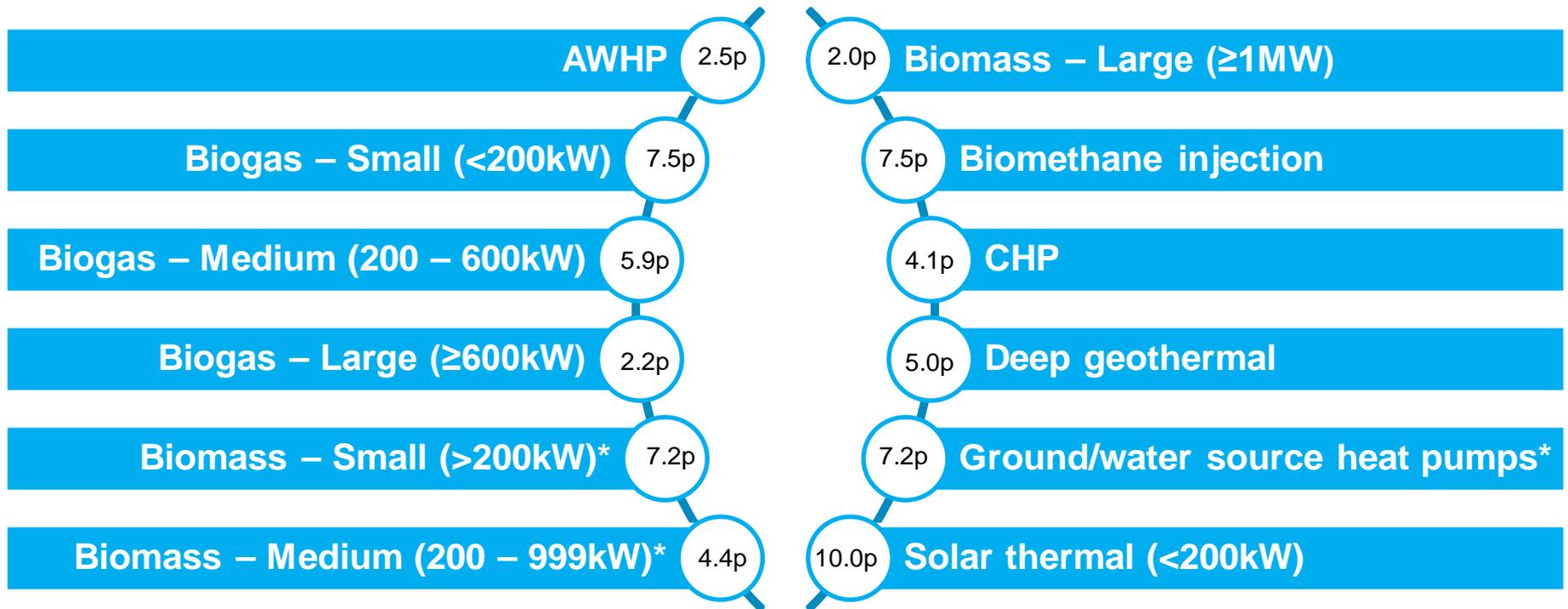


# Renewable Energy

## The Non-domestic RHI

### Is the non-domestic RHI for me?

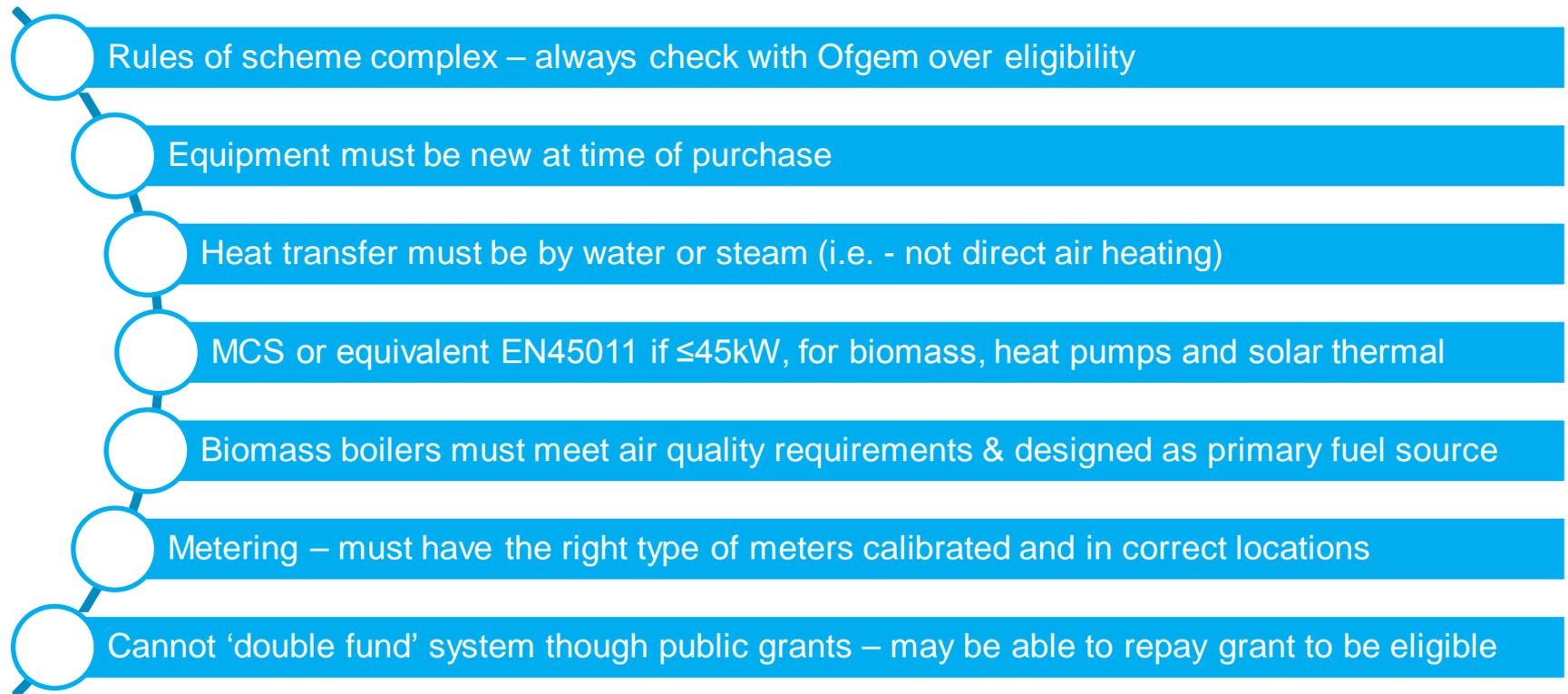
- New and increased tariffs for some technologies, from spring 2014



\*Figures provided are untiered – this equate to tiered tariffs of: Small Biomass 8.8p/2.3p; Medium Biomass 5.1p/2.2p, G/WSHP 8.7p/2.6p

# For those intending to apply

- Only the owner of an eligible heating system can apply. Requirements are:





# The application process

- Applications are subject to the detailed scheme rules: [www.ofgem.gov.uk](http://www.ofgem.gov.uk)

Prepare in advance – check guidance material before starting application process – be ready for technical questions and evidence that's required

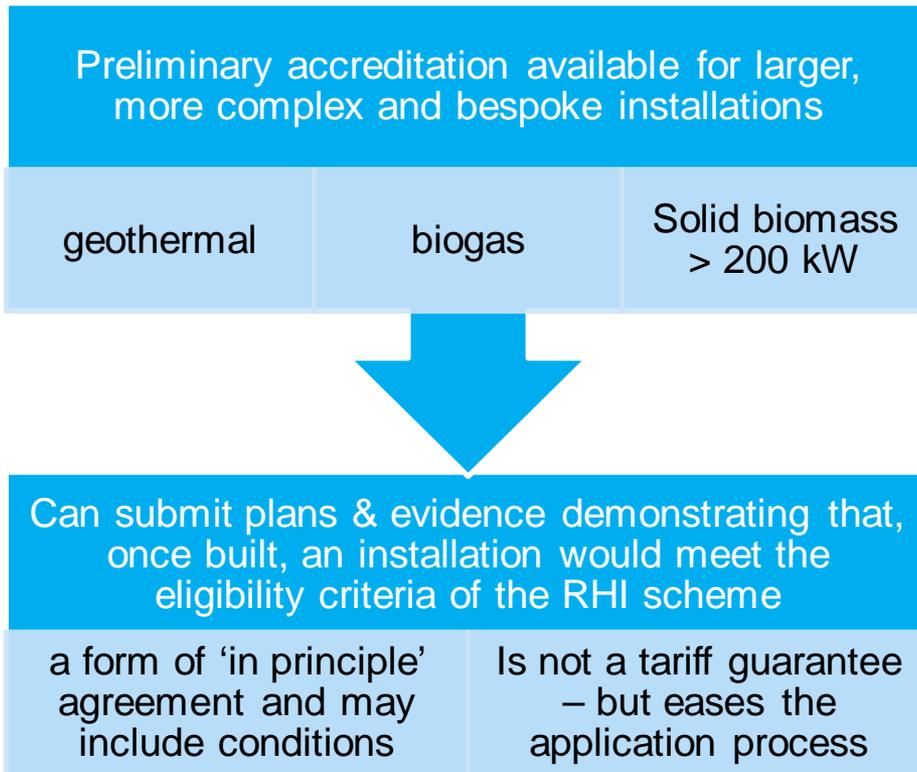




# Renewable Energy

## The Non-domestic RHI

### Is there anything else I can do?



#### Common issues with applications to date

- Lack of fuel records
- Meter component installed incorrectly
- Heat losses not being measured appropriately
- Boiler output higher than stated capacity

Proper installation, operation and maintenance can make all the difference

# Renewable Energy

## The Non-domestic RHI

### What happens then?

- Once you are accredited onto the scheme:

Owner regularly submits meter readings and periodic data

Ofgem makes regular financial incentive payments

Owner is aware of their responsibilities to remain compliant with scheme & signs annual declaration

Ofgem selects installations for audits and inspections on an ongoing basis



Submit meter readings & periodic data to receive payments

Maintain & service equipment – keep a log & receipts

If biomass installation, start a fuel log and keep fuel receipts

Inform Ofgem of any changes to your installation

Sign an annual declaration

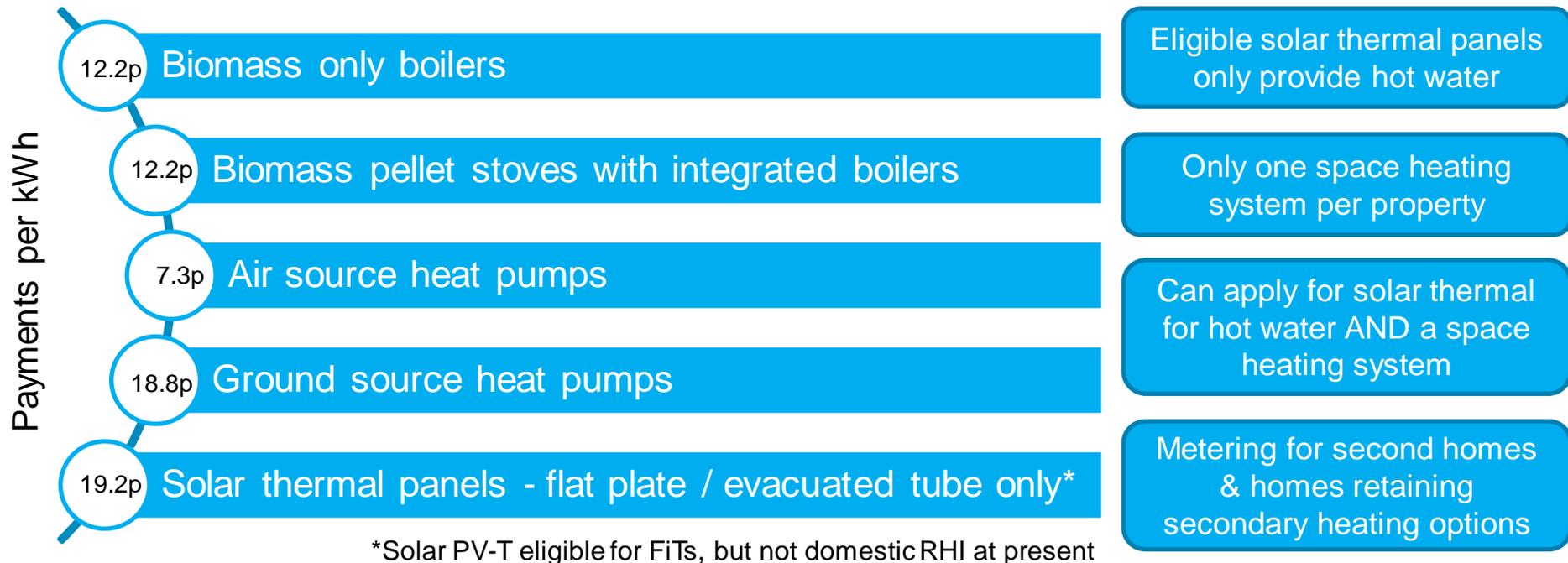


# Renewable Energy

## The Domestic RHI

### Is the domestic RHI for me?

- Available for households on and off the gas grid – those without mains gas have the most potential to save on fuel bills and decrease carbon emissions



# What to do before applying

- Renewable heating systems work best in well insulated home.

Talk to an installer about your options and check advice with Ofgem website

What type of system might be right for your property



To apply you must have a green deal assessment carried out for the property

Only exemptions are for those who build their own homes incorporating renewable heating system



You must install loft and cavity wall insulation if recommended in Green Deal Advice Report

If it is not possible to do this, evidence must be submitted to Ofgem as part of application



Get an updated EPC to verify loft and cavity wall insulation has been installed



# Renewable Energy

## The Domestic RHI

### Quarterly payments in arrears for 7 years

- Possible fuel bill savings in the first year, compared to the cost of running a new oil boiler:



#### ASHP

- Between 10 and 35%
- If installed and operated properly



#### Biomass

- Between 15 and 40%
- Dependent on the price of wood fuel used



#### GSHP

- Between 25 and 40%
- If installed and operated properly



#### Solar Thermal

- Between £60-£130
- Dependent on the amount of hot water used



# Renewable Energy

## The Domestic RHI

### Where it can get complicated

- Some property types thought of as domestic may not have a domestic EPC



# Biomass Sustainability

- This is critical for both the domestic and non-domestic schemes

Spring 2014

Application requirements for Biomass Suppliers List to be made available

Autumn 2014

Minimum 60% GHG emission saving relative to EU fossil fuel heat average

Spring 2015

Land criteria which correspond to meeting the UK Timber Procurement Policy for woody biomass

All existing & new applicants MUST comply with updated criteria, from date legislation in force

This will impact any fuel that you purchase now but intend to use later – so stock pile carefully



# Renewable Energy Contact Details

## For more information:

### Domestic



- Pre-application enquiries by ESAS in England & Wales: 0300 123 1234
- Or contact Home Energy Scotland: 0808 808 2282
- Ofgem deliver scheme – guidance and online application form
- [www.ofgem.gov.uk/domestic-rhi](http://www.ofgem.gov.uk/domestic-rhi)

### Non-domestic



- Ofgem deliver scheme
- Guidance on [www.ofgem.gov.uk](http://www.ofgem.gov.uk)
- RHI enquiry line: 0845 200 2122
- Email: [rhi.enquiry@ofgem.gov.uk](mailto:rhi.enquiry@ofgem.gov.uk)



Any questions?