

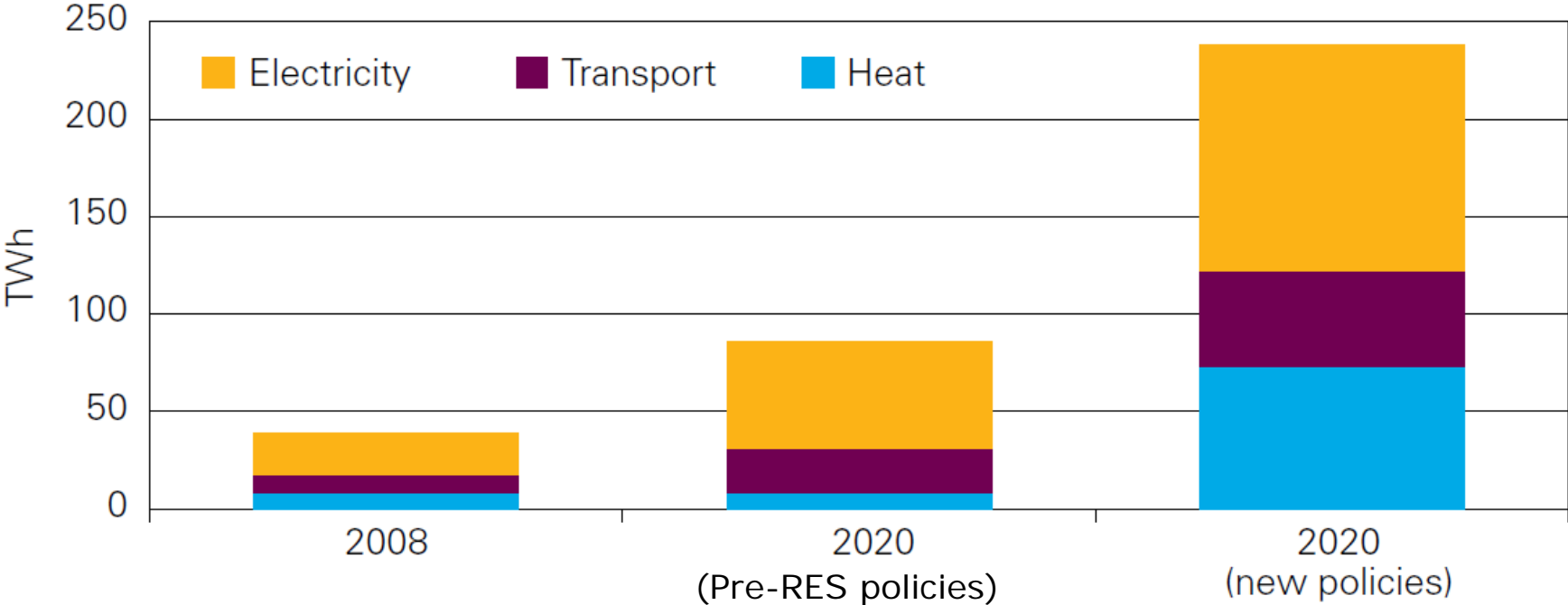
Renewable Heat Incentive

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Why renewable incentives?

- EU Renewables target
 - Currently no incentive scheme for heat
- Carbon targets
- Instrumental in changing behaviour
- Need simple incentives - particularly at small scale
- Associated benefits including:
 - Security of energy supplies
 - Economic benefits, new jobs

15% - 7x increase in renewables by 2020



Source: Energy Trends June 2009 and DECC internal analysis

Heat - half the battle

- Heat production is responsible for 49% of the final energy consumed in the UK, and 47% of the carbon emissions.
- Meeting the UK's 2020 and 2050 carbon reduction and renewables targets will require a big contribution from heat.
- 54% of heat use is domestic; 30% industrial; and 16% commercial/public sector.



Renewable heat incentive (RHI)

Air-source and ground-source heat pumps



- To encourage individuals, communities and businesses to switch from fossil fuels to renewable forms of heat by providing a financial incentive
- Increase renewable heat from <1% of total today to around 12% by 2020
- GB wide scheme – covering all sizes of installation



Biomass boilers



Solar thermal

- All scales, wide range of technologies and target groups
 - All currently deployable technologies
 - Aimed at all business sectors, communities, public sector, households. Not just energy companies.
- Detailed proposals, for instance:
 - Bio liquids only where replacing domestic heating oil
 - Only new installations after 15 July 2009;
 - No cooling, no wood burning stoves
 - Innovative technologies included in mainstream tariffs
 - DH & CHP included on equal footing with dedicated heat

- Compensate for cost difference between renewable and fossil fuel heating
- Rate of return of **12%** (6% for solar thermal)
- Plus compensation for barrier costs and inflation adjustment
- Nominal rate of return incl. barrier compensation will be **higher**
- Tariff lifetime = expected equipment lifetime (10-23 years)
- No degression until first review
- Fixed tariffs (grandfathering)

- **Small and medium:** “deeming” to avoid perverse incentive to over-generate
- **Large scale** (incl. process heating, district heating, biomethane injection): metering
- Deeming based on current standards (such as Standard Assessment Procedure (SAP)) - methodology to be developed over the coming months
- Deeming encourages **energy efficiency** (and deeming methodology will assume minimum energy efficiency measures taken)

Biomass proposals

Boiler size	Proposed tariffs p/kWh	Tariff lifetime
<45kW	9 (deemed)	15 years
45-500kW	6.5 (deemed)	15 years
>500kW	1.6 – 2.5 (metered)	15 years

- Same tariffs for biomass CHP and heat only
- Range at the large scale reflects potential variation in support required for heat only and CHP – looking for evidence
- For biomass CHP until 2013 choice of RO + half ROC uplift or RO + RHI
- No RO uplift after 2013 – just RO+RHI

- Right level of support at large scale – CHP/heat only
- Small scale issues:
 - Biomass boilers vs. stoves
 - Wood chip and pellet, what about logs?
 - What can be practically burned in the boilers - verification?
 - Fossil fuel backup boilers
- Future biomass strategy, security of supply, costs and sustainability

- Financing – third parties including ESCOs and LAs
- Fuel poverty
- Estimated numbers of installations in 2020:

Additional renewable resource in 2020	TWh	1,000 installations
Domestic	11	1,728
Non-domestic	62	144
Total	73	1,872

- 2020 annual carbon savings: 17 MtCO₂ of which 15 outside ETS

<i>Lead Option (£mn, 2009 prices, discounted)</i>	Per annum in 2020	Cumulative to 2030	Cumulative to 2045
Subsidy costs (costs to consumers)	2,400	28,300	35,900
Resource costs	1,500	18,400	23,500

- Illustrative bill impacts (pending funding mechanism):*

	increase in domestic bill (%)	increase in industrial bill (%)
2015	3%	4%
2020	14% (£104 a year)	20%



- Consultation until April 26
 - Eligibility, tariffs, delivery, funding options
- Draft regulations – autumn 2010
- Regulations will need Parliamentary approval – early 2011