



# UK Renewable Energy Policy

Office for Renewable Energy Deployment, Department of Energy and Climate Change



# Why do we need renewable energy?





# Legal framework

## Ambitious, legally binding targets:

- The Climate Change Act set a target to reduce emissions by at least **80% by 2050** relative to 1990 levels and by at least **34% by 2020**
- The EU Renewable Energy Directive requires the UK to meet 15% of energy demand from renewable sources by 2020 (from 3.8% in 2011)



# Key renewable technologies

The EU defines 'renewables' widely, as "energy from renewable non-fossil sources. **We can use any of these to meet a target of 15% of energy use in 2020, equal to 220 – 230 TWh of generation.** But the following eight technologies will be most important.

## 1. Offshore Wind

In 2020: **33–58TWh/yr**

Very large deployment potential - but deeper / further out sites are expensive. Working to reduce cost by 2020

## 2. Biomass Heat

In 2020: **36–50TWh/yr**

Heat from wood, waste, sewage etc. mainly for industrial and commercial use.

## 3. Biomass Electricity

In 2020: **32–50TWh/yr**

Contributes around 40% of total renewable electricity

## 4. Onshore Wind

In 2020: **24–32TWh/yr**

Can be widely deployed, but issues with their placement and public desirability

## 5. Heat Pumps

In 2020: **16 -22TWh/yr**

Uses electricity to pull heat from air or ground ('reverse refrigerator').

## 6. Solar PV

In 2020: **6–18TWh/yr**

Classic panels on roofs to generate electricity from sunlight. Small to industrial scale

## 7. Marine Energy

In 2020: **1TWh/yr**

Small contribution to 2020, but potential to provide much more in future.

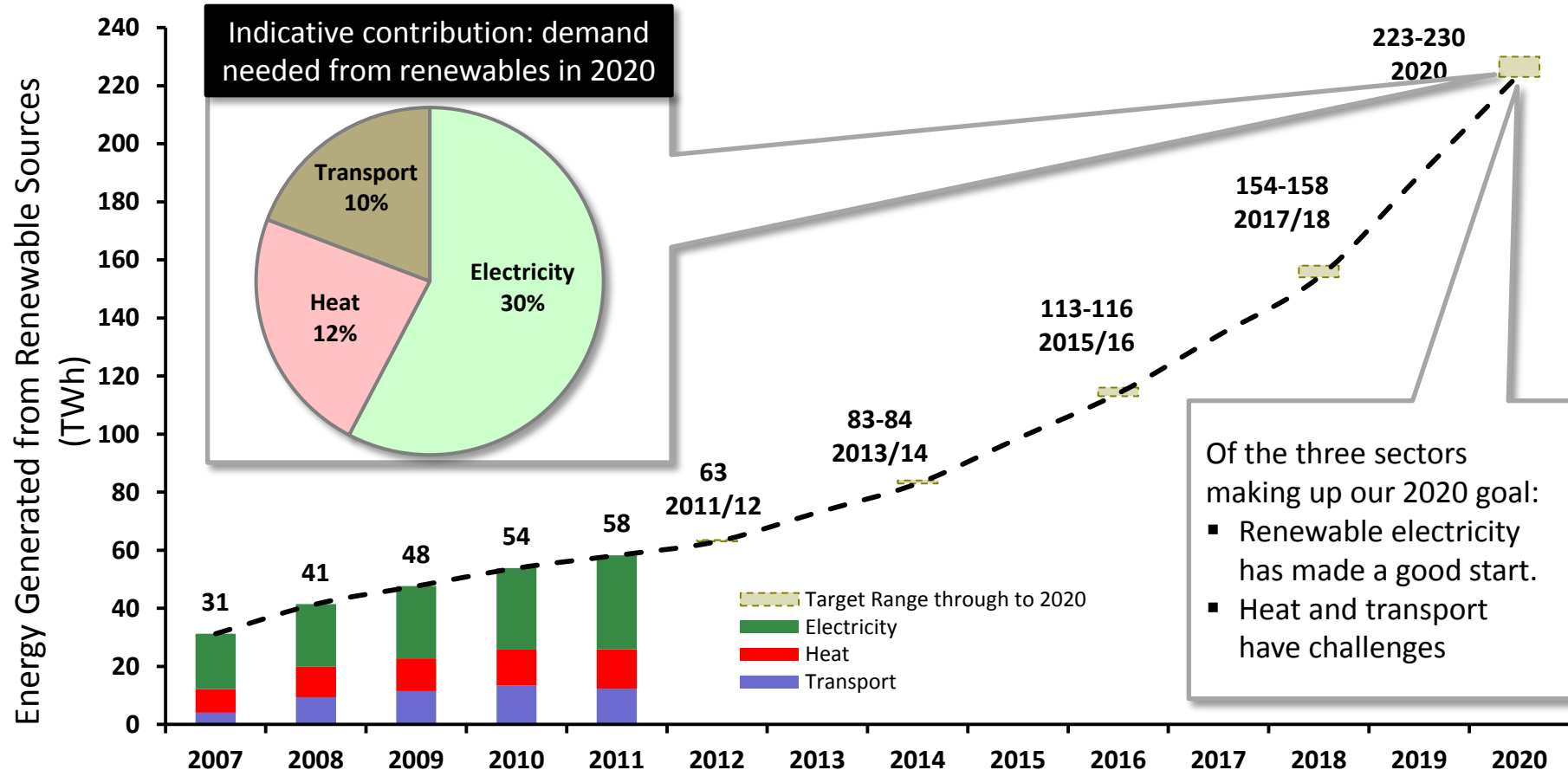
## 8. Renewable Transport

In 2020: **< 44TWh/yr**

Much theoretical potential but must ensure sustainability.

# Because of the low starting point, deployment needs to be steep

## Renewable Energy in the UK: Historic and Projected, 2007 - 2020



**Renewable electricity generation increased from 9.4% in 2011 to 12.5% by the end of 2012.**

# Financial Support

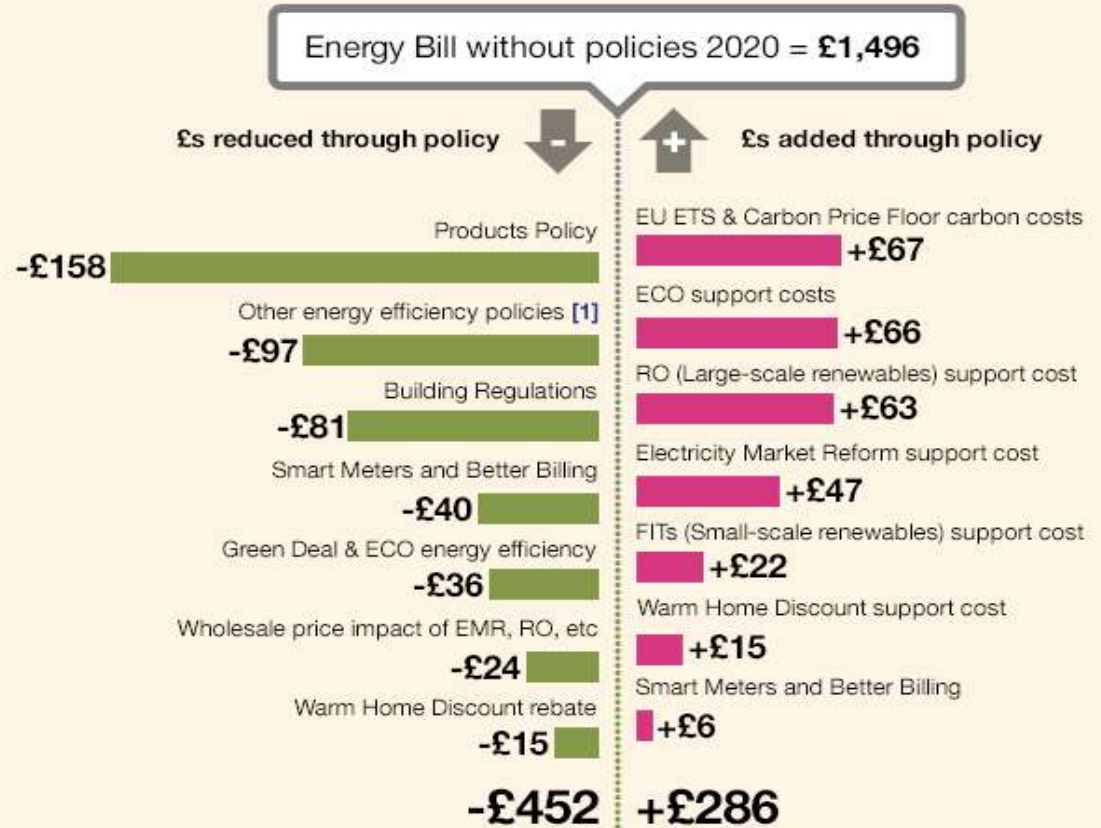
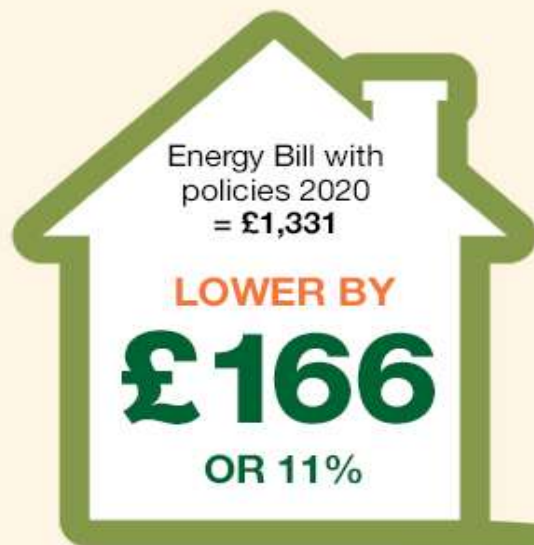
- The Renewables Obligation is currently the main policy for supporting large scale renewable electricity deployment. The Feed in tariff supports smaller scale projects (up to 5MW).
- RO closes to new generation in 2017
- Contracts for Difference **will take over as our main source of support for large scale electricity generation** projects
- Between 2014 and 2017, new renewable energy projects will be able to make a one-off choice between the two mechanisms





# Impact on energy prices and bills

Estimated average impact  
of energy and climate  
change policies on  
household energy  
bills in 2020



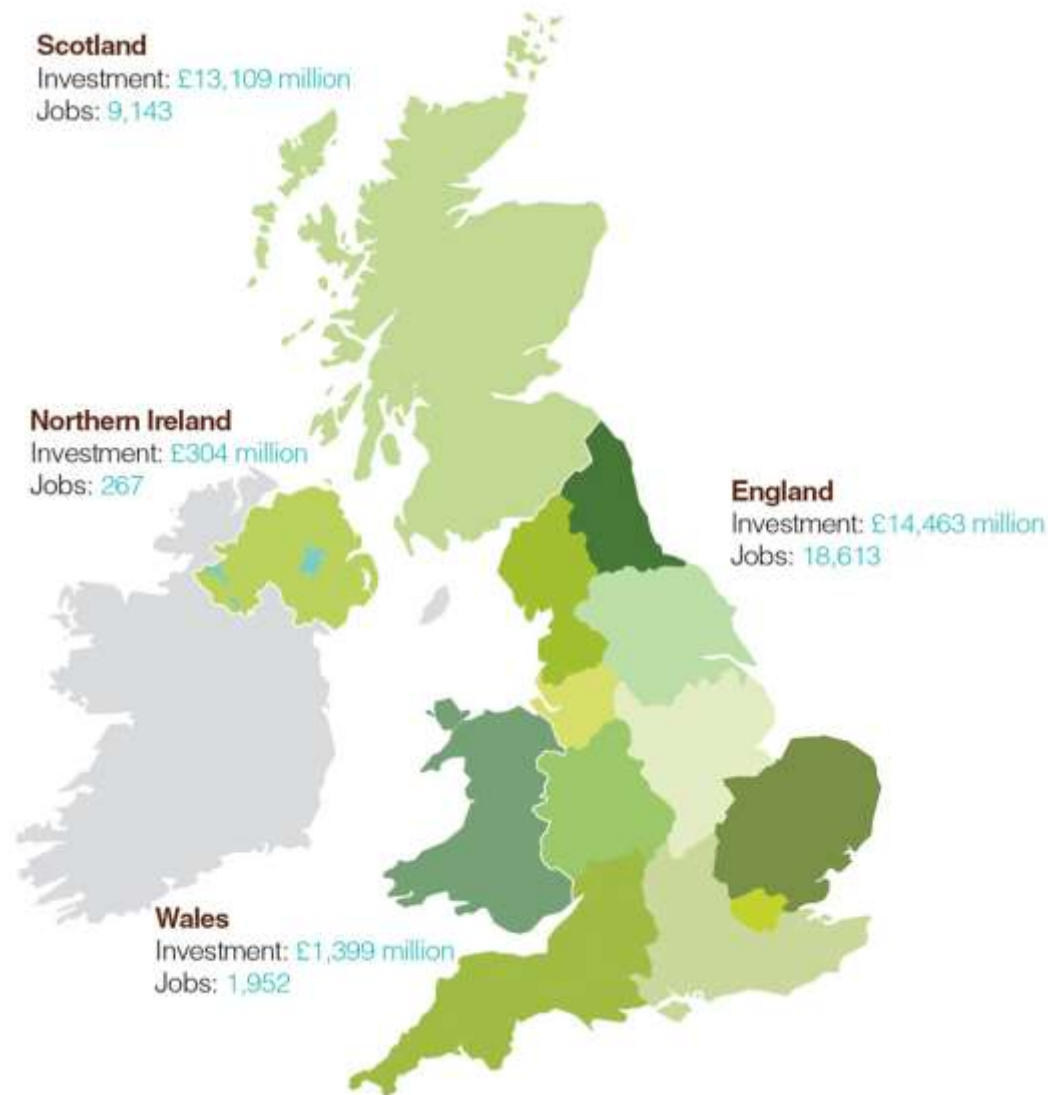
Energy Bill with policies 2020 = **£1,331**  
**LOWER BY £166 OR 11%**

All figures in real £2012 prices. Figures may not add due to rounding.  
Average bill impacts shown, not all households will benefit from all measures.  
[1] CERT, CERT Extension, CESP and EEC 1&2.



## Delivering investment and jobs

**Since 2010 DECC has recorded investments in large scale renewable energy totalling over £29 billion, with the potential to support around 30,000 jobs.**





# What influences people's views on renewables?



# Onshore Wind Community Engagement and Benefits



Department  
of Energy &  
Climate Change

Call for Evidence: Part A- on how communities can have more of a say over, and receive greater economic and wider social benefits from, hosting onshore wind farms. Part B - examined the latest UK onshore wind costs.

Over 1000 response from members of the public, NGOs developers, Local Authorities etc.

Our response was published in June and announced:

- Maintained level of financial support for onshore wind;
- Fivefold increase in community benefits payments;
- Compulsory pre-application consultation;
- Commitment to clear and reliable evidence on the impacts of onshore wind, through an evidence toolkit;
- Best practice guidance for use by those parties involved in onshore wind developments;
- Register of community benefits on offer.

Any questions?



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