Department of Energy & Climate Change

HM Government

Energy Investment Report April 2014

Department
of Energy &
Climate Change

Energy Investment Report – April 2014

In advance of our fuller Energy Investment Report later this year, I am delighted to provide a summary of the investment secured in energy from 2010 onwards.

The Coalition Government inherited a massive energy investment challenge following many years of underinvestment. This summary demonstrates the progress we have made in encouraging investment. Since 2010 we have secured more than £45bn of investment in electricity infrastructure alone.

The scale of the energy investment challenge was clearly shown in the 2013 National Infrastructure Plan where energy projects accounted for nearly 60% of the UK's total infrastructure project pipeline (£218bn of the £377bn). The Department's analysis had identified a need for up to £110bn of electricity infrastructure investment between 2013 and 2020. We are delighted to see nearly £14bn already invested in 2013 against this target and a subsequent reduction in the future estimated spend requirement, which now stands at up to £100bn through to 2020.

We are also laying the foundations for the landmark projects that will support our future energy capacity and UK jobs. For example, EDF's £16bn investment in Hinkley Point C (which will support up to 900 permanent jobs). The Capacity Market will provide the insurance policy against future blackouts or price spikes and help to ensure consumers continue to receive reliable electricity supplies at an affordable cost. Overall, Energy UK figures suggest that already more than one in 45 jobs in the UK are supported by the energy sector.

There are many other exciting developments – for example, contracts have been signed to develop Europe's first two commercial scale Carbon Capture & Storage projects in Scotland (Peterhead) and Yorkshire (White Rose). Backed by £1bn of Government support for development and construction costs, these low carbon energy projects could support around 2,000 jobs and, together with ongoing investment in R&D, will position the UK as a world leader in this innovative sector. Success will help UK suppliers to access a global market which could be worth £3bn to £16bn to the UK economy.

Energy is at the heart of everything we do in the UK and it is an essential driver of growth and jobs. We remain focused on bringing forward investment in clean energy infrastructure to ensure security of supply, reduce carbon emissions and maximise energy efficiency. Our investment strategy will minimise costs to households and businesses and maximise opportunities for jobs and growth in the UK.

The energy sector in the UK has an exciting and bright future ahead.

Ed Davey
Secretary of State

Global, European and UK context

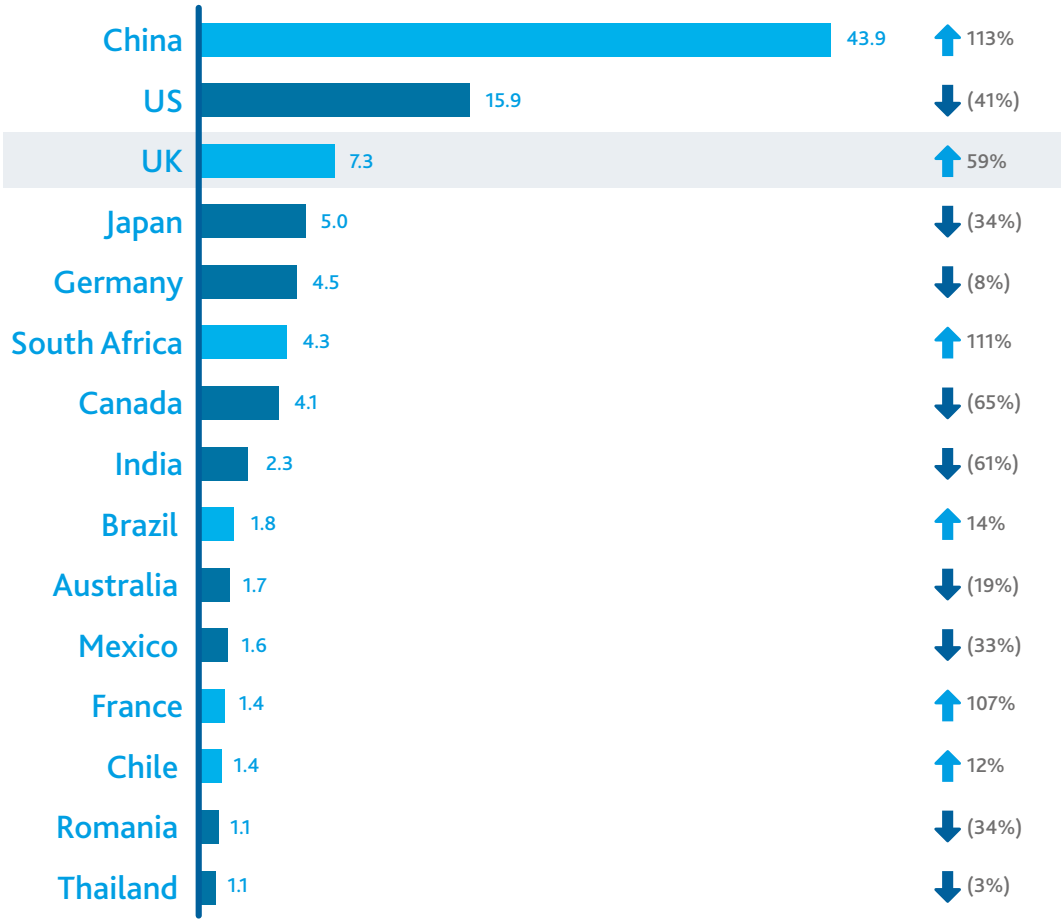
5th in the world

Globally, the UK is one of the most attractive places to invest in energy.

EY's renewable attractiveness index puts the UK at 5th overall and in first place for offshore wind and second for biomass – this has helped to secure record investment in 2012 and 2013.

New-build renewables asset finance figures show that the UK is behind only China and the US in terms of 2013 activity, and up 59% from 2012.

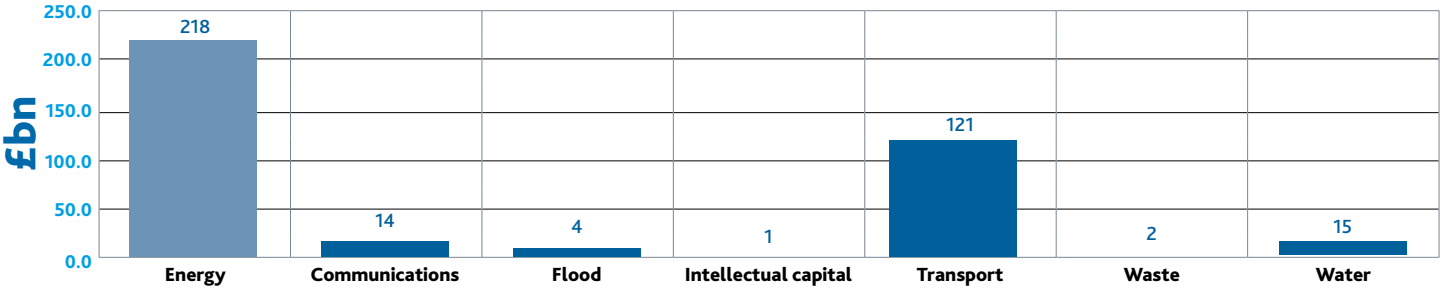
New-build renewables asset finance in 2013 and change on 2012



Source: Bloomberg (US$ bn), % change from 2012

At £218bn, the energy sector has the largest pipeline of infrastructure investment projects in the UK. Energy projects account for more than transport, communications and water put together – at more than 58% of the 2013 National Infrastructure Plan.

National Infrastructure Plan 2013 – Pipeline by sector



Source: National Infrastructure Plan 2013 (HM Treasury December 2013)

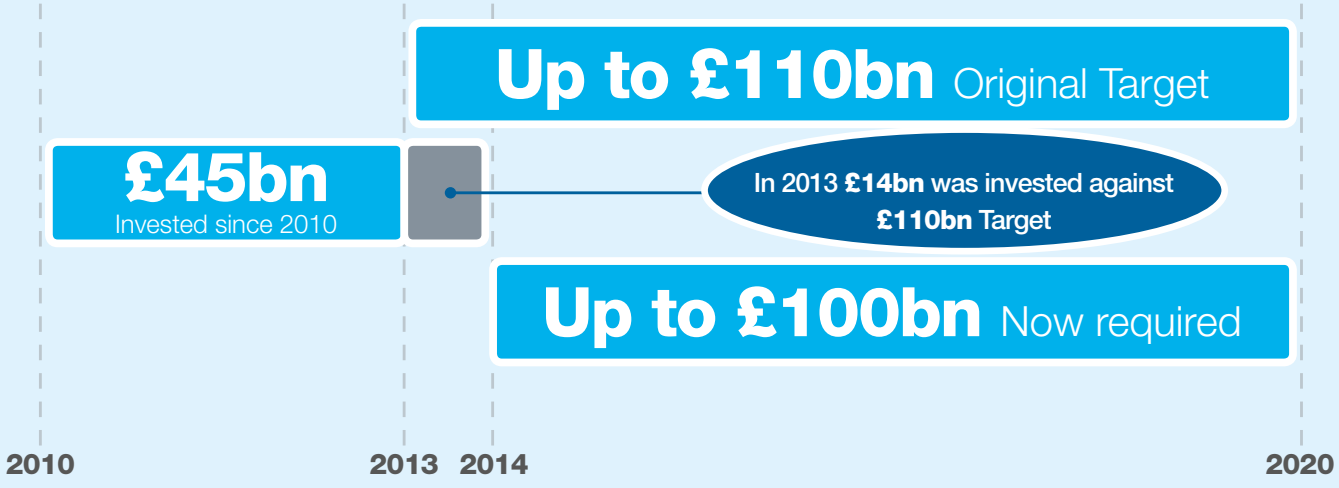
Electricity generation & infrastructure

£45bn since 2010

We are making progress against the investment challenge inherited by the Coalition Government since 2010, with more than £45bn of investment achieved in electricity infrastructure alone.

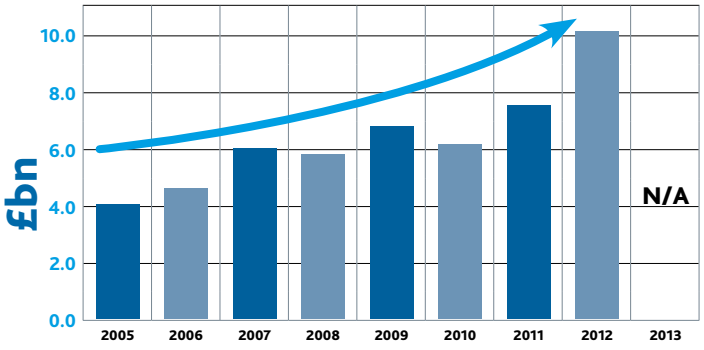
We had previously identified a need for up to £110bn of electricity infrastructure investment between 2013 and 2020 – analysis shows that almost £14bn was invested against that £110bn target in 2013.

Our latest analysis shows that the £110bn electricity investment target now stands at up to £100bn through to 2020.



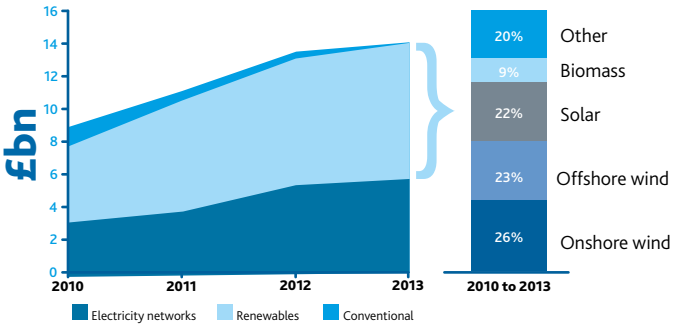
The continued growth in investment is consistent with the ONS Annual Business Survey which shows increased annual capex on electricity, power generation & distribution since 2005, with 2012 as the record year to date (2013 figure not yet released).

ONS Annual Business Survey – Capex on electricity, power generation & distribution



Source: ONS - DECC 2012 prices

Annual electricity investment – by connected capacity & allowed spend



Source: DECC connected capacity analysis

Analysis by technology highlights the substantial growth in renewable generation capacity. Figures from Bloomberg show that average annual investment in renewables has more than doubled in this Parliament – up to nearly £7bn average per annum (compared to the previous Parliament at £3bn). In 2013, almost £8bn was invested in renewables – a record high.

Investment is also being made in the UK's ageing electricity and gas networks. Since 2010, more than £16bn of investment has been made in electricity transmission and distribution alone. Looking forward, further significant investment in electricity and gas networks will continue with a number of major projects that include gas networks and electricity transmission upgrades (of which a key link is the subsea cable between England/Wales and Scotland) to 2021 that are expected to support over 8,500 jobs.

Renewable Electricity – Activity and jobs

Since 2010, over £30bn has been invested in electricity generation principally in renewable technologies.

The UK renewables sector is generating thousands of supply-chain jobs across the country. On 25 March 2014 Siemens and ABP announced that they would invest £310 million to build two new factories in Hull, to make turbine blades and assemble offshore wind turbines. Construction is to start later this year, and will finish in 2016. Construction at both sites will support at least 300 jobs and once operational, it is expected they will support 1,000 jobs.

"The British energy policy creates a favourable framework for the expansion of offshore wind energy. In particular, it recognises the potential of offshore wind energy within the overall portfolio of energy production." Michael Suess, Head of Siemens's energy sector

Selected announced renewables investment activity across the UK

Renewable generation investments announced since 2010

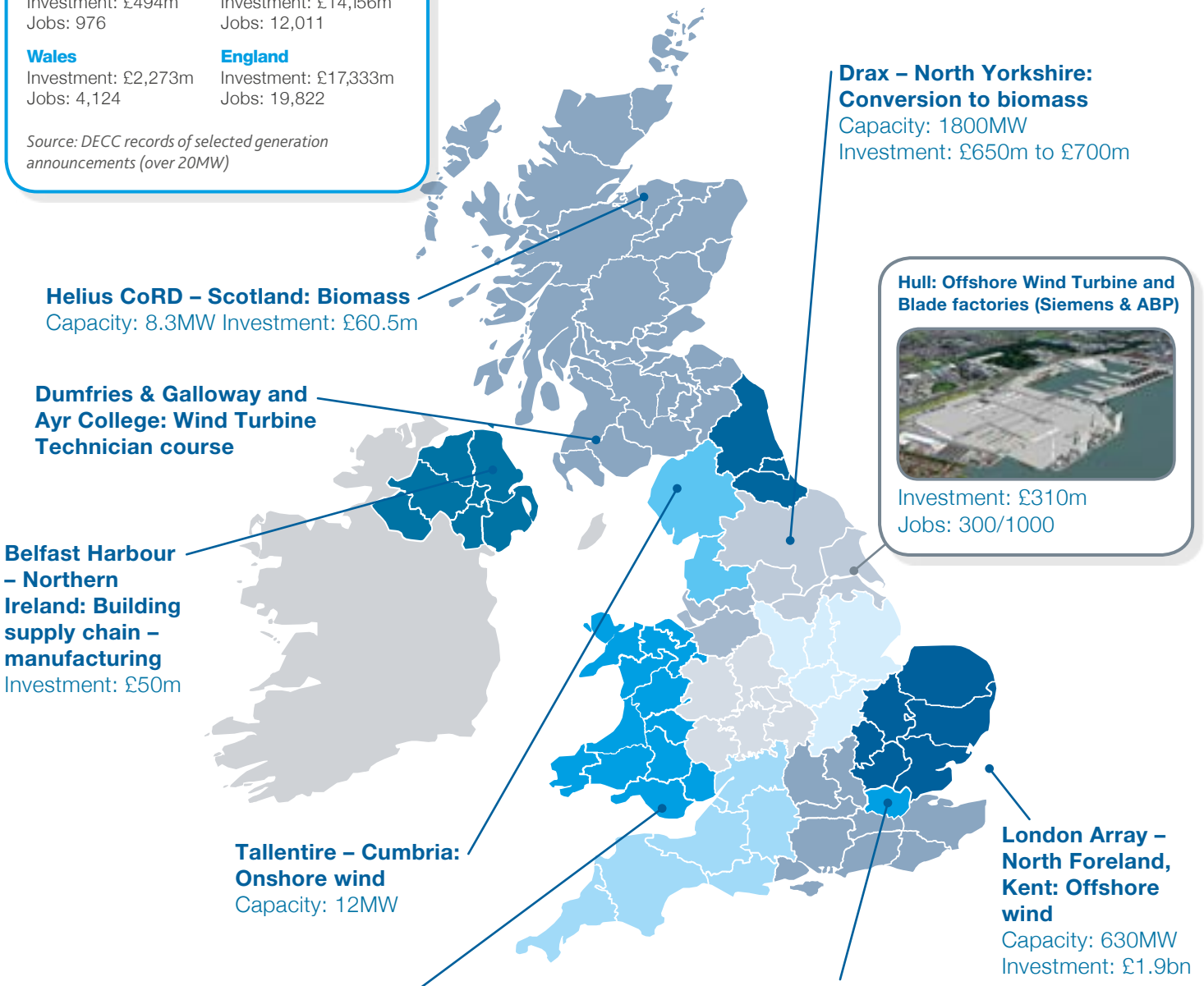
Northern Ireland
Investment: £494m
Jobs: 976

Scotland
Investment: £14,156m
Jobs: 12,011

Wales
Investment: £2,273m
Jobs: 4,124

England
Investment: £17,333m
Jobs: 19,822

Source: DECC records of selected generation announcements (over 20MW)



Helius CoRD – Scotland: Biomass
Capacity: 8.3MW Investment: £60.5m

Dumfries & Galloway and Ayr College: Wind Turbine Technician course

Belfast Harbour – Northern Ireland: Building supply chain – manufacturing
Investment: £50m

Drax – North Yorkshire: Conversion to biomass
Capacity: 1800MW
Investment: £650m to £700m

Hull: Offshore Wind Turbine and Blade factories (Siemens & ABP)

Investment: £310m
Jobs: 300/1000

Tallentire – Cumbria: Onshore wind
Capacity: 12MW

London Array – North Foreland, Kent: Offshore wind
Capacity: 630MW
Investment: £1.9bn

Pen-Y-Cymoedd – South Wales: Onshore wind
Capacity: 228MW Investment: £365m

Blackfriars Bridge – London: Solar photovoltaic (PV)
Capacity: 1.1MW Investment: £7.3m

Secondary investment into electricity – acquisitions & refinancing

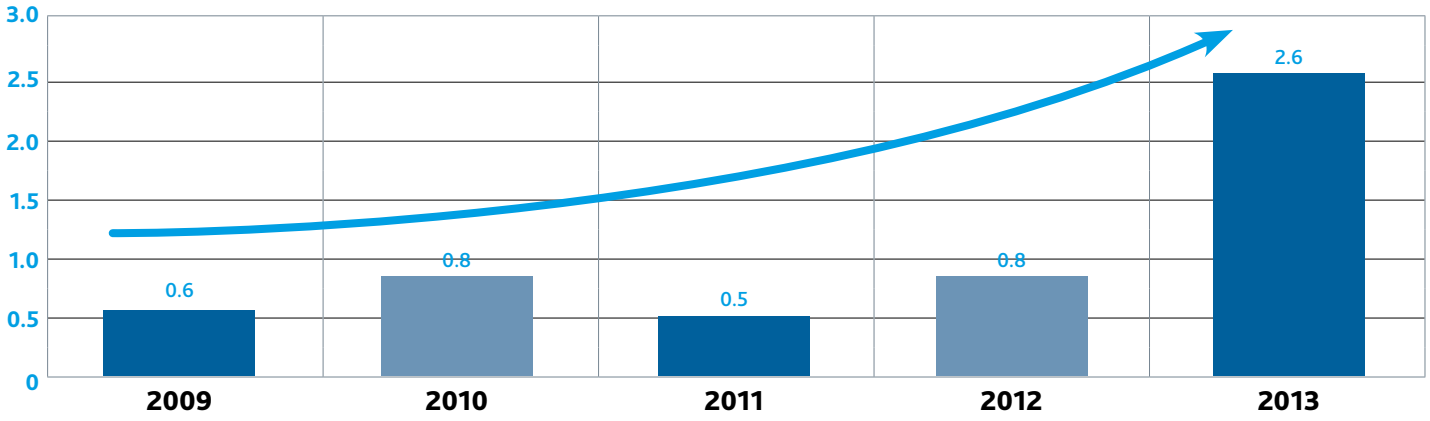
2013
£2.6bn
released for reinvestment

Since 2009, secondary investment into UK electricity generation has increased – at £2.6bn, 2013 was a record year.

Secondary investment by financial investors is essential to recycle a developer's capital and allow them to move onto new projects and start the investment cycle all over again.

In a recent example, the Green Investment Bank's announcement of investment of £461m in the Westermost Rough and Gwynt y Môr offshore wind projects allows DONG Energy and RWE Innogy to recycle their investment capital into the next wave of investment projects.

Secondary investment (acquisitions & refinance) in electricity generation



Source: Bloomberg

Upstream Oil & Gas

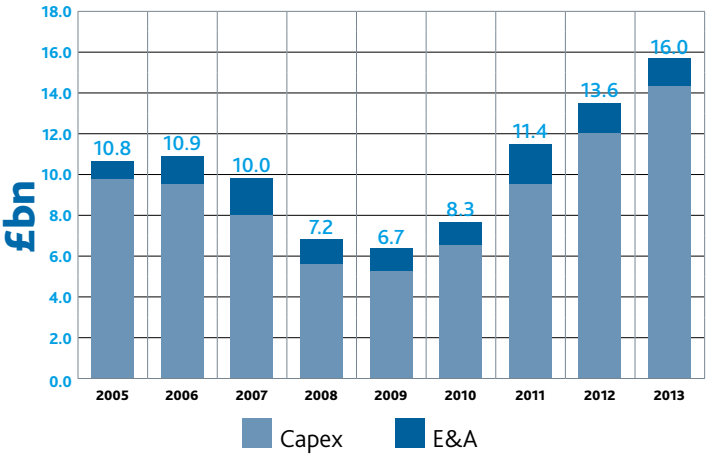
£9bn
annual operating cost

There have been increased levels of investment in development (capex) and exploration and appraisal (E&A) on the UK Continental Shelf since 2009, with 2013 being a record year.

The upstream Oil and Gas sector supports 340 000 jobs in the UK with around £9bn of annual operating costs across the sector.

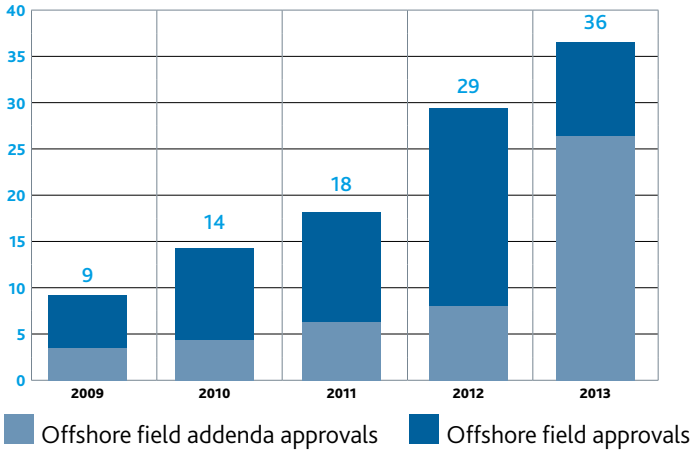
Activity is increasing – the total of offshore field and field addenda approvals has also increased year on year since 2009.

UK Continental Shelf expenditure



Source: DECC - 2013 prices, industry specific cost index

Offshore field and field addenda approvals



Source: DECC

Energy efficiency and heat

£4bn Saved in 2013

Our policies are transforming the demand side landscape through investment in efficiency to minimise energy bills for households and businesses.

In 2013 alone, Government's demand side energy policies have saved an estimated £4bn from energy and transport fuel bills for households and businesses.

Government working with industry has grown a multi-billion pound market for energy efficiency in the UK, supporting over 100,000 jobs.

A range of policies support further business investment in energy efficiency and our Energy Efficiency Strategy is focussed on eliminating the supply and demand side barriers to investment.

Households are now using around a fifth less energy than they were in 2004 – saving the average consumer around £200 a year.

Energy efficiency and heat investments that have supported this decrease include:

- Insulation – around two-thirds of lofts and cavity walls are now well insulated
- Double glazing – over 75% of homes have double glazing throughout
- High efficiency boilers – more than 12 million homes now have high efficiency boilers compared to around 1 million in 2005. 70% of these boilers are made in the UK
- Household renewable heating systems – installations in the last two years are more than 25% higher than installations in the previous five years

However, there is still significant potential for investing further across the building stock with 6% of domestic properties and 18% of commercial properties rated as being in the lowest building energy efficiency categories.

In December 2013 we set out a £450 million package over three years to provide various new energy efficiency incentives for landlords and home-buyers as part of Government's commitment to supporting households.

Looking forward:

- We will see the roll-out of Smart Meters that will transform the way in which consumers will engage with their energy use and the market. Completing the national roll-out will involve visits to around 30 million homes and small businesses and the installation of over 50 million meters between now and 2020.
- The Renewable Heat incentive (RHI) will also kick-start investment in the renewable heat market for households, commercial, public and industrial heat-users. Over the last two and half years the RHI has accredited around 4,000 installations with over 700 MW of installed capacity in the non-domestic sector. RHI is expected to have generated around £3bn of investment in renewable heating by the end of 2015/6, supporting over 10,000 jobs.

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