



The UK Government and Devolved Administrations set out a strategy for sustainable development, *Securing The Future*, in 2005. Drawing on this framework and stakeholder feedback, we focus on the five themes which we think capture how the Gas and Electricity Markets Authority should contribute to the sustainability challenges of the 21st century.

The third of the five themes is promoting energy saving. Energy conservation and improved energy efficiency are critical elements in any sustainable development strategy. Saving energy can deliver a huge range of environmental, social and economic benefits. We are committed to playing our part to encourage all energy consumers to be more energy efficient and to facilitating the provision of energy services by market participants.

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Indicator 9: Energy consumption and intensity

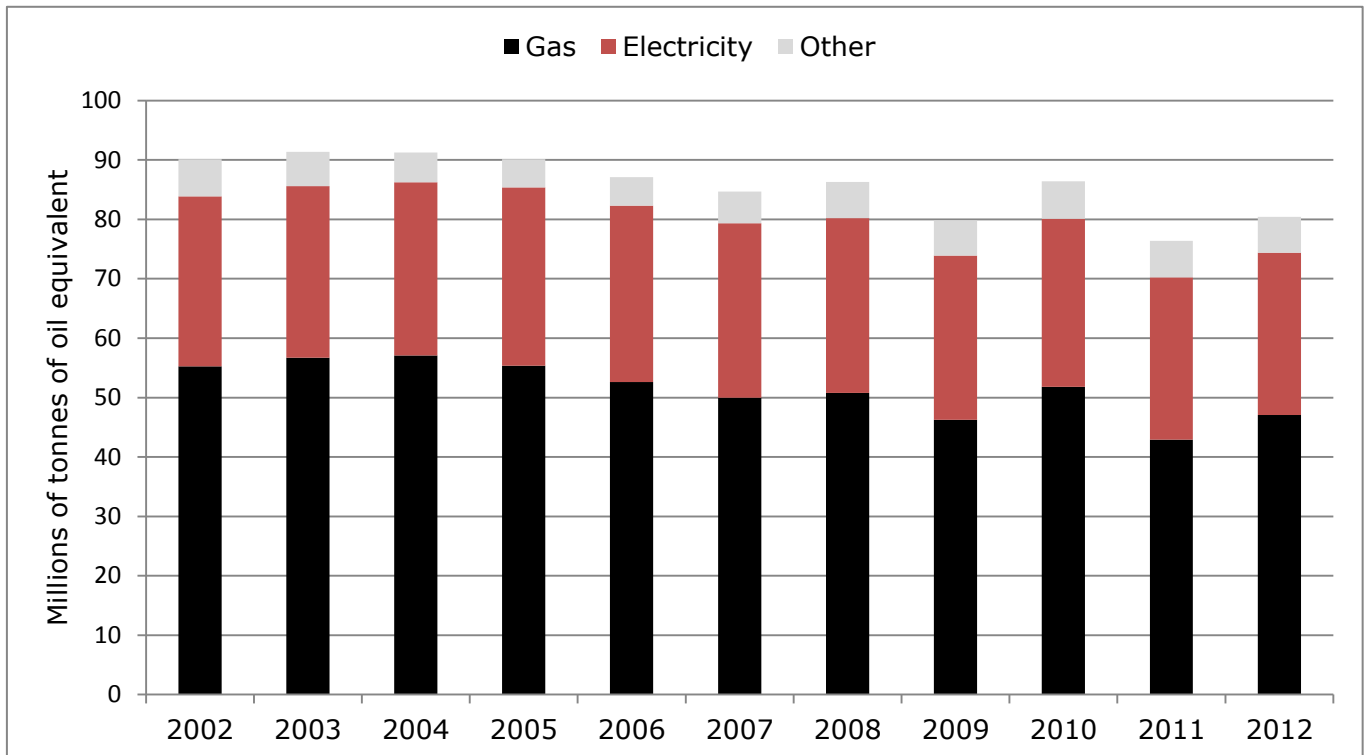


Figure 14 - Non-transport Energy Consumption (updated November 2013)

Source: DECC

Over the past decade, gas consumption has fallen while consumption of electricity and other sources of energy has remained relatively stable. Weather has a significant impact upon gas consumption. The extreme cold weather experienced in 2010, and to a lesser extent in 2012, explains the increase in consumption during these two years. The milder weather experienced in 2011 allowed gas consumption levels to drop to the lowest value over the past decade.

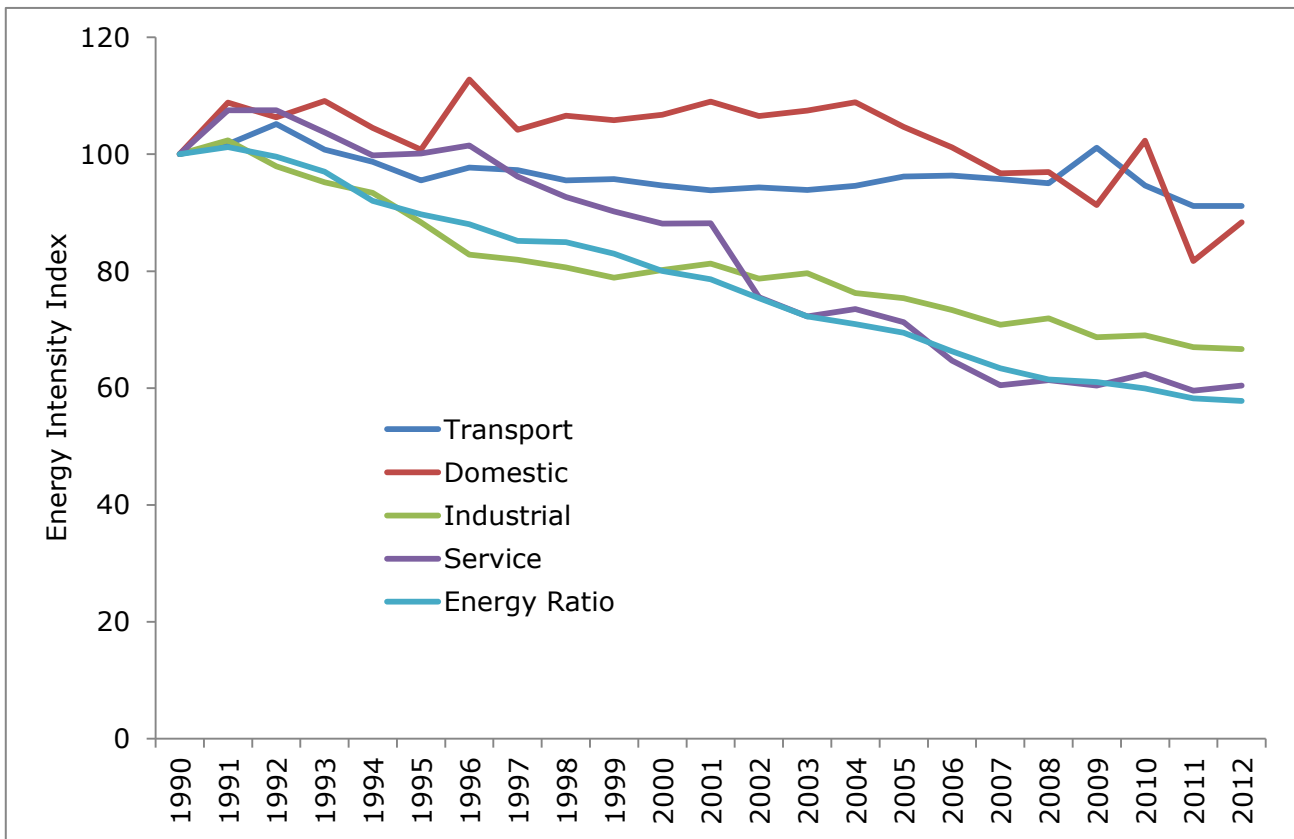


Figure 15 - Energy intensity by sector (updated November 2013)

Source: DECC

All sectors of the economy are now less energy intensive than they were in 1990. The service sector has progressed the most in recent years, with the transport sector making the least progress. The sharp decrease in domestic energy intensity between 2010 and 2011 reflected milder temperatures experienced over the year compared with 2012 and preceding years.

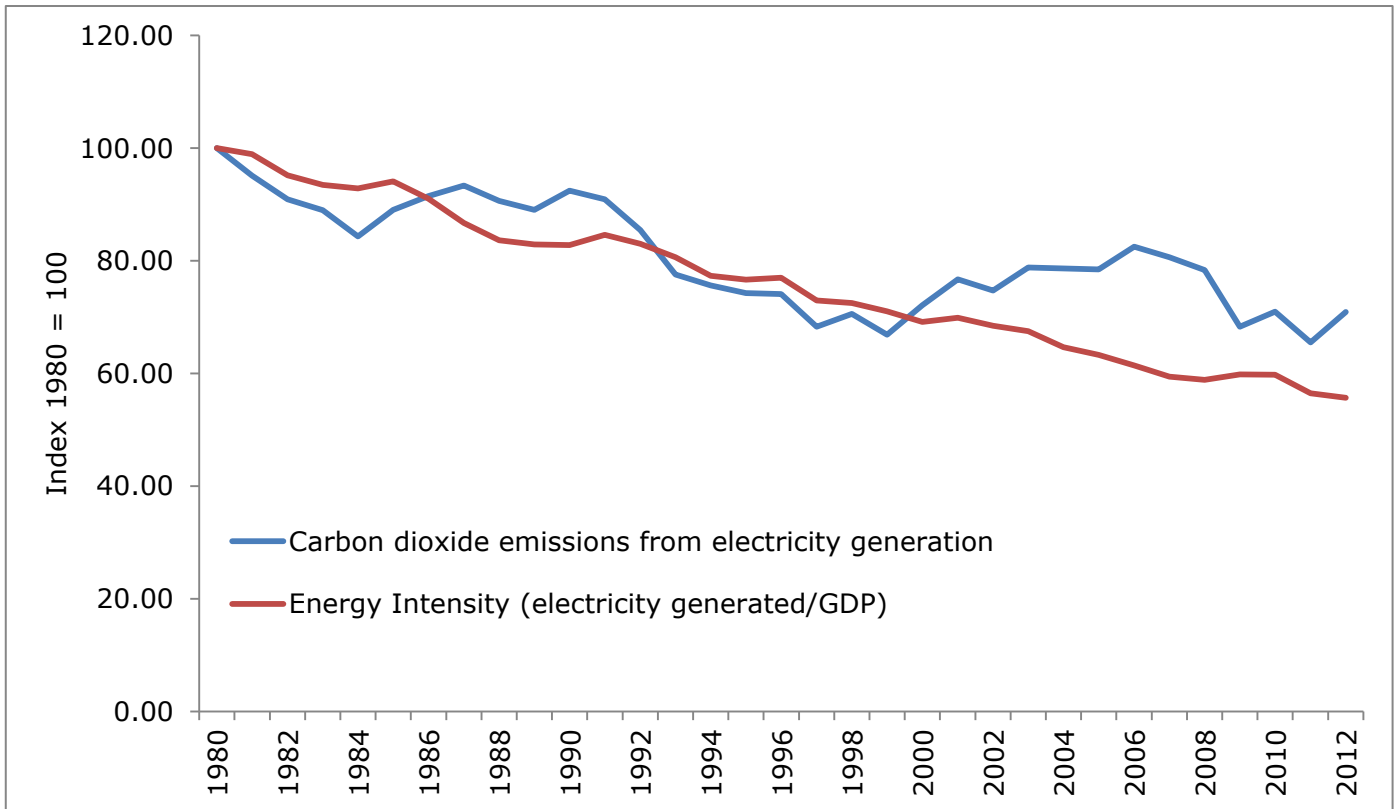


Figure 16 - Energy intensity and carbon dioxide emissions of power generation (Updated January 2014)

Source: DECC UK Energy Sector Indicators

CO₂ emissions from electricity generation increased in 2012, largely due an increase in the use of coal for electricity generation combined with an increase in residential gas use. The overall trend in energy intensity is that it has been decreasing since 1980. The carbon dioxide emissions from electricity generation has been more variable but also shows an overall decreasing trend.

Indicator 10: CO₂ savings from the CERT

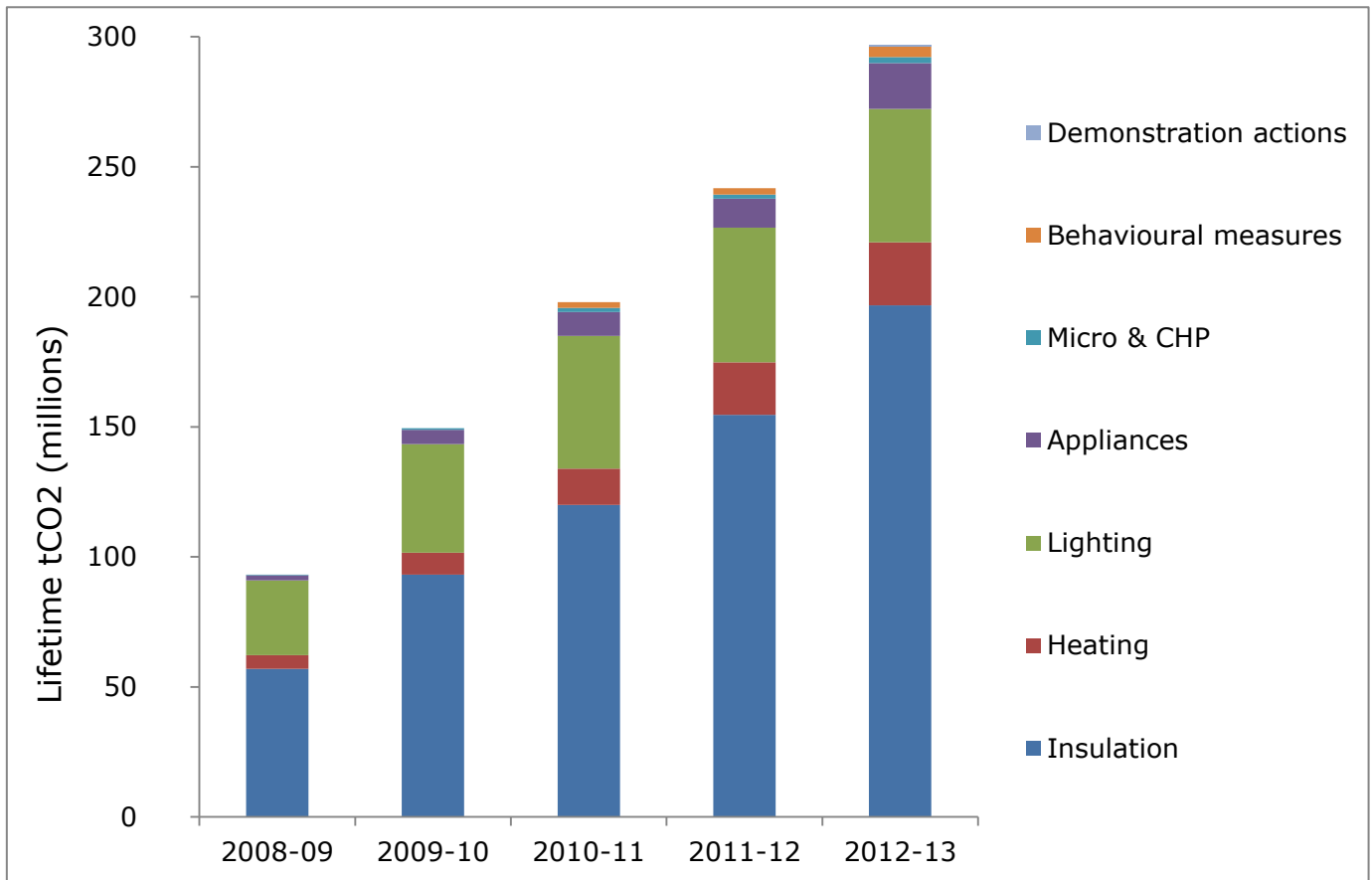


Figure 17 - Carbon dioxide emissions savings from the CERT (updated July 2013)

Source: Ofgem

The government's Carbon Emissions Reduction Target (CERT) scheme has achieved savings of nearly 300m lifetime tonnes of CO₂ since it began in 2008.

196m lifetime tonnes (66%) of this was down to insulation, whilst lighting also contributed 51m lifetime tonnes (17%)

Indicator 11: Gas and electricity losses

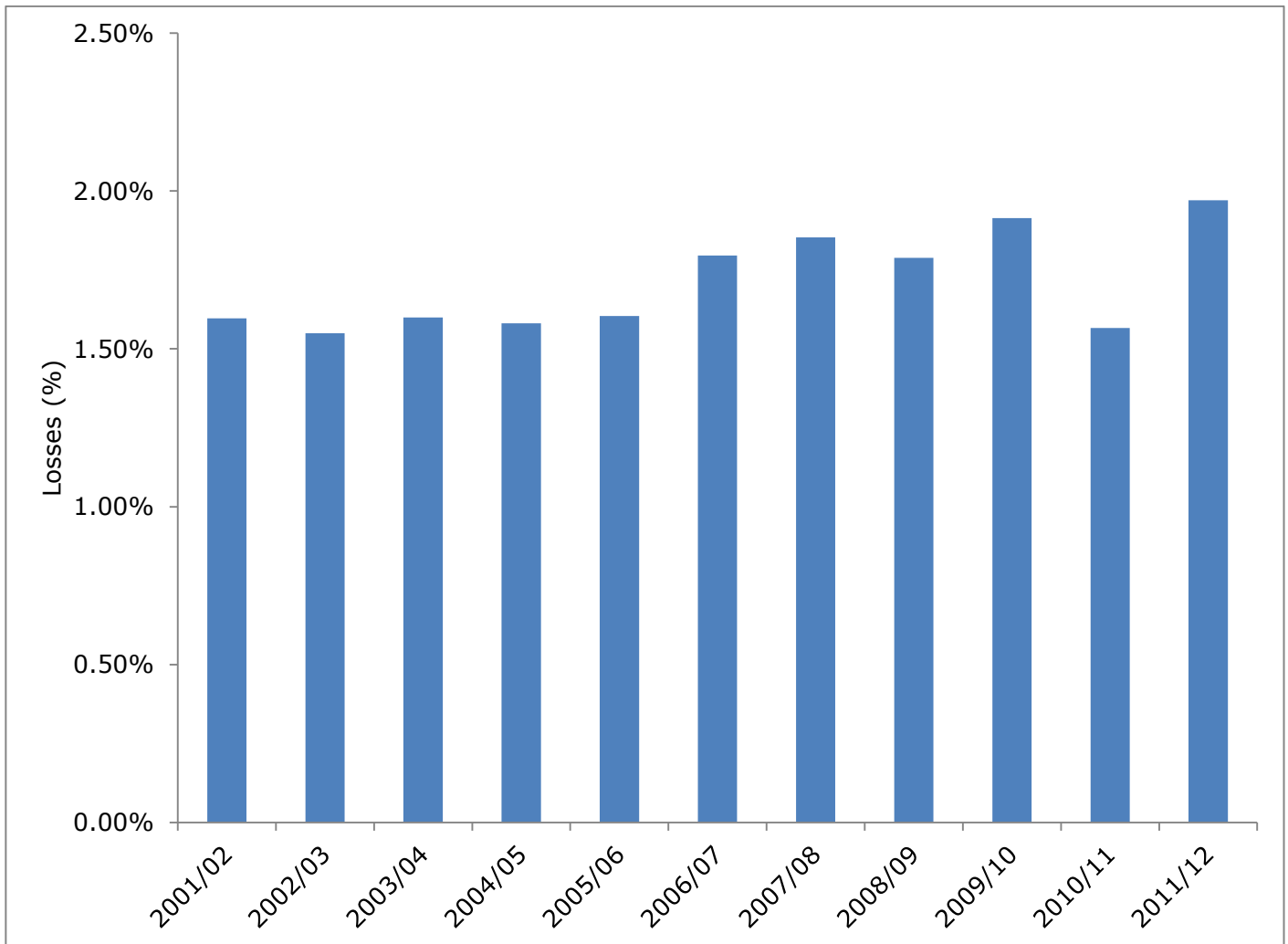


Figure 18 - Electricity transmission losses (updated January 2013)

Source: Ofgem data and National Grid data

The transmission losses are generally driven by north to south power flows. Reported transmission losses for 2011/12 are higher than those for 2010/11 but in line with previous years. 2010/11 transmission losses were anomalously low because of a shift in generation from the north to the south of the country; for example, high generation from Hinkley Point and low generation from Heysham contributed some 300-500 GWh to the reduction in losses. Transmission losses were reduced further by the eastern interconnector circuits with Scotland being out of service for the majority of the year for reinforcement works, which are now complete.

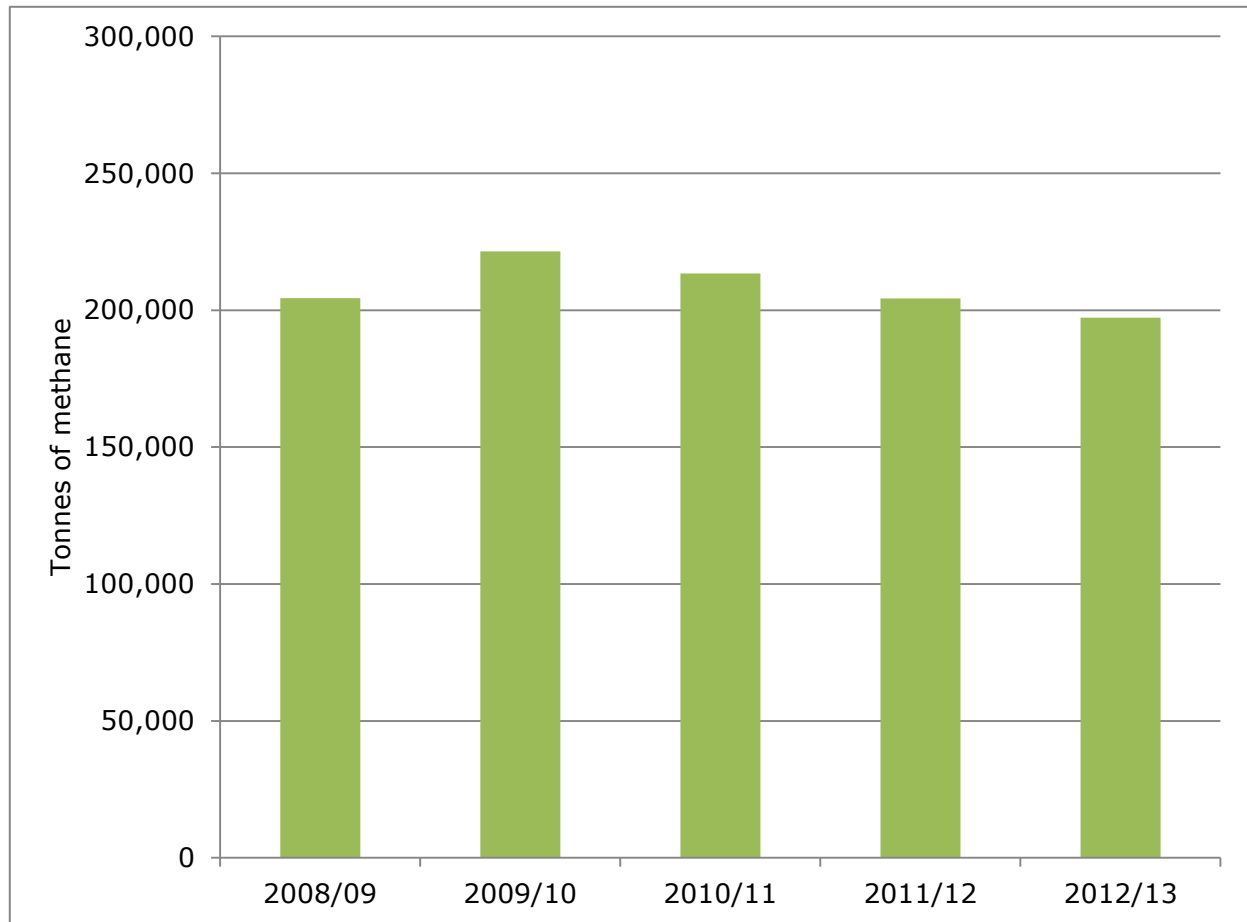


Figure 19 – Methane emitted from gas distribution networks (updated January 2014)

Source: Ofgem data

This chart shows a decline in methane emissions from gas distribution networks as the gas mains replacement programme proceeds. Emissions have fallen by over 16,000 tonnes since 2010, or the equivalent of 339,885 tonnes of CO₂. This was calculated using a methane global warming potential of 21, based on Defra’s 2012 guidelines for reporting Greenhouse Gases.