ofgem **Theme 3**

Promoting energy saving

Sustainable Development Indicators

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

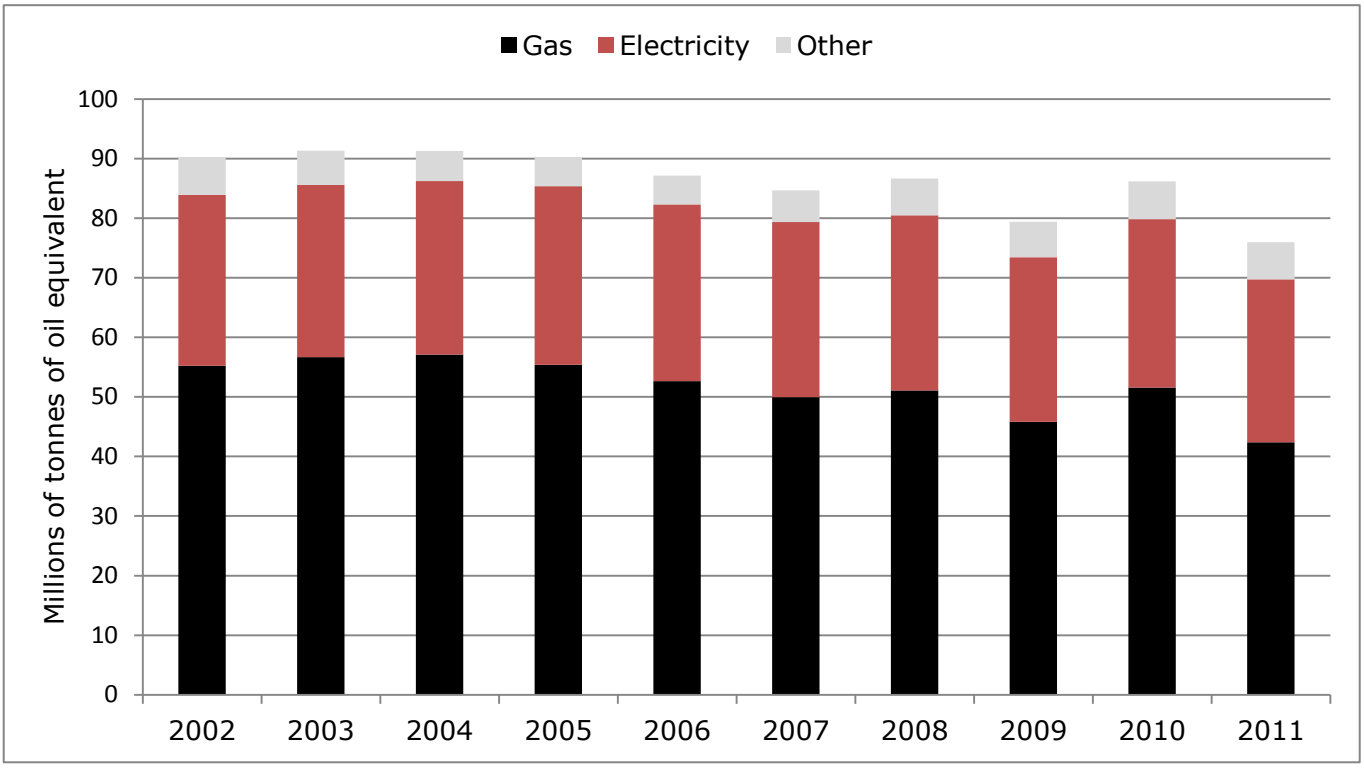

Figure 14 - Non-transport Energy Consumption (updated November 2012)
Source: DECC

Over the past decade, gas consumption has fallen while consumption of electricity and other sources of energy has remained relatively stable. The out-of-trend rise in gas consumption in 2010 was due to the cold weather, and this has been followed by a significant decrease in 2011.

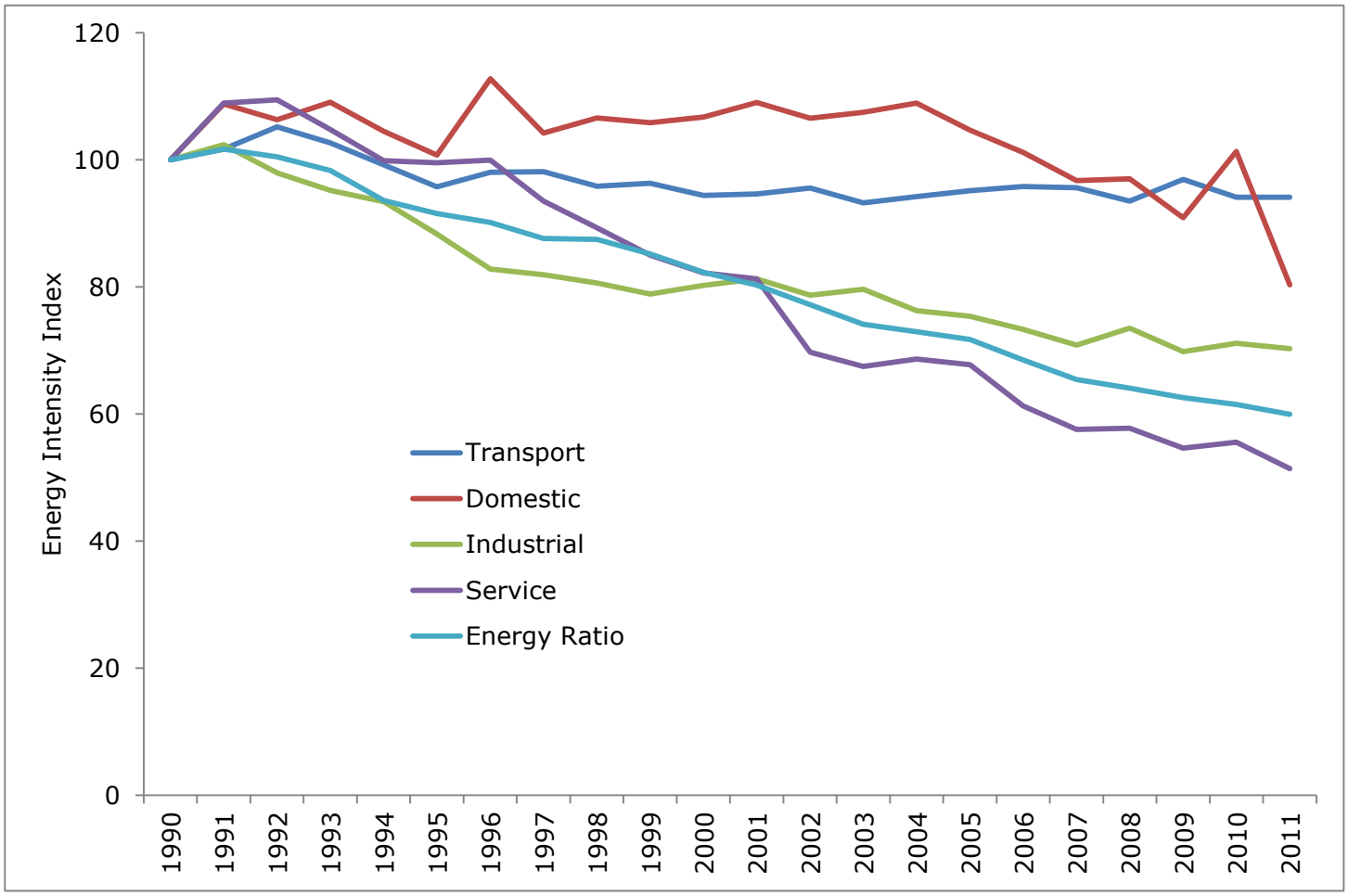

Figure 15 - Energy intensity by sector (updated November 2012)
Source: DECC

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. Whilst there was an increase in domestic energy intensity from 2009-10 due to the cold weather, this sector has decreased sharply over the last year.

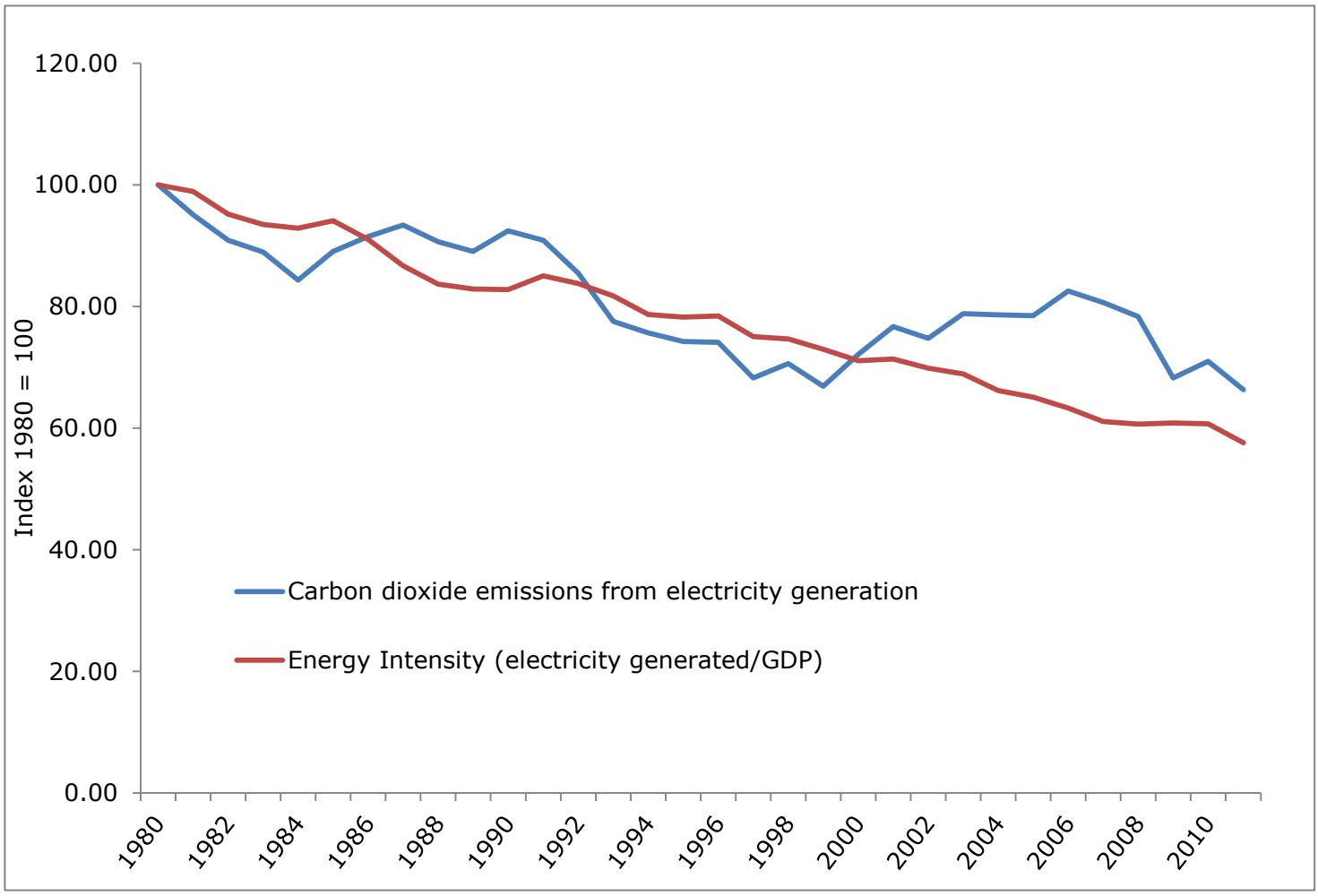

Figure 16 - Energy intensity and carbon dioxide emissions of power generation (updated February 2013)
Source: DECC UK Energy Sector Indicators

There was an increase in CO2 emissions from electricity generation in 2010, largely due to an increase in demand for electricity, however emissions fell again in 2011. 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: CO_2 savings from the CERT

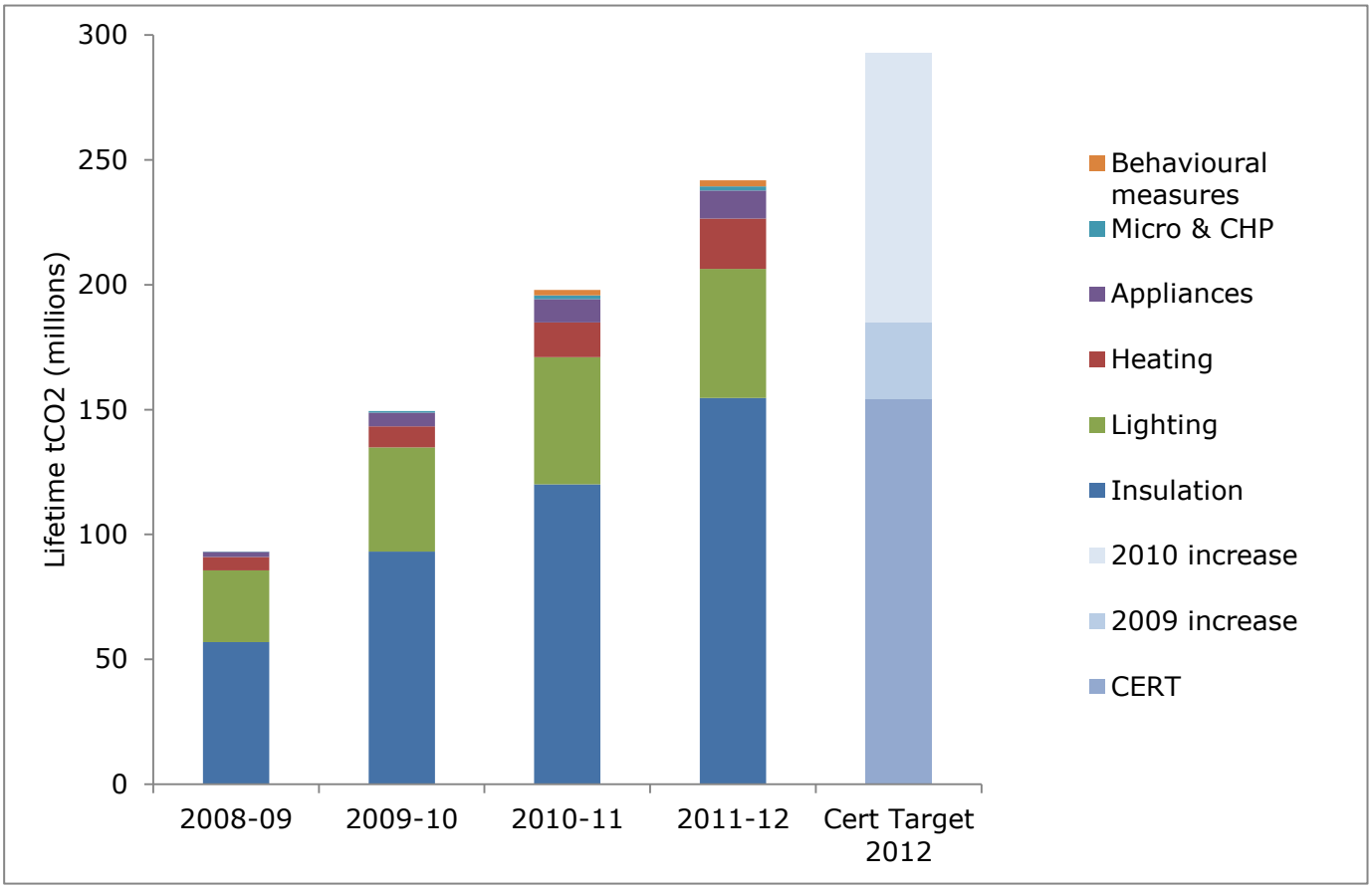

Figure 17 - Carbon dioxide emissions savings from the CERT, including carry-over (updated July 2012)
Source: Ofgem

The government's Carbon Emissions Reduction Target (CERT) scheme has achieved savings of nearly 250m lifetime tonnes of CO2 since it began in 2008.

At the end of year four of CERT, suppliers have achieved 78% of their overall target, 42% of their Insulation Obligation and 22% of their Super Priority Group obligation.

Indicator 11: Gas and electricity losses

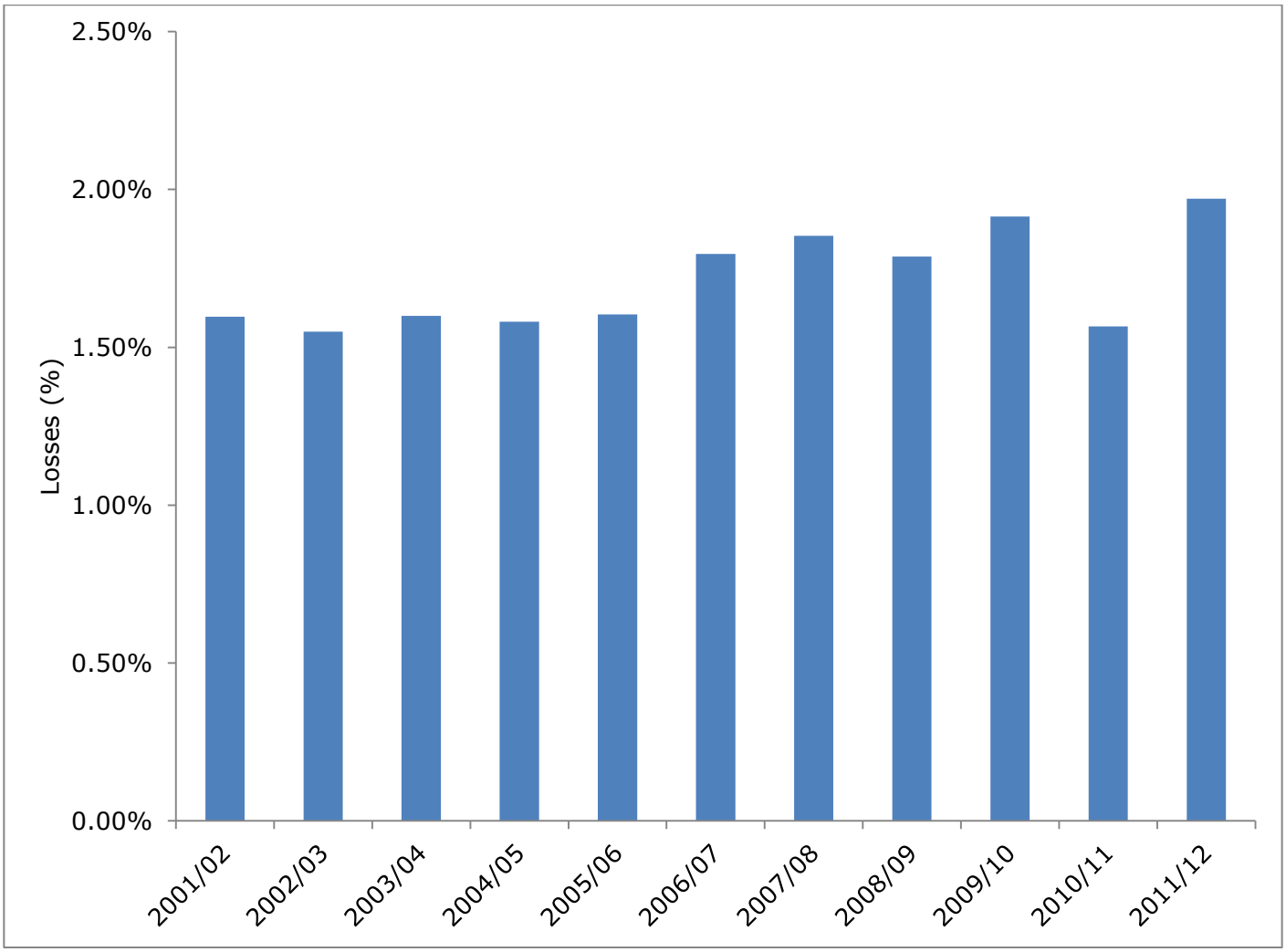

Figure 18 - Electricity transmission losses (updated February 2013)
Source: Ofgem data and National Grid data

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.

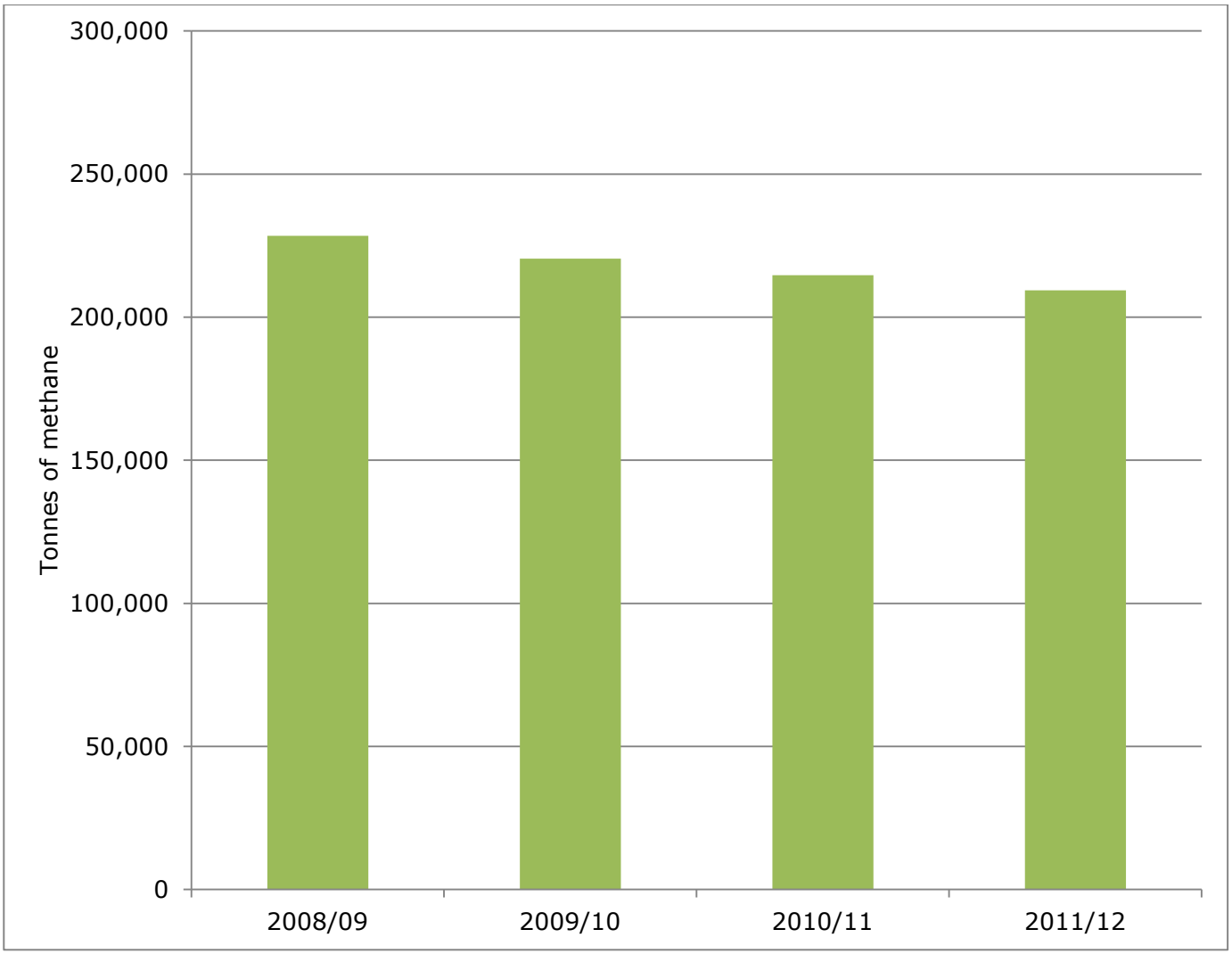

Figure 19 – Methane emitted from gas distribution networks (updated February 2013)
Source: Ofgem data

This chart shows a decline in methane emissions from gas distribution networks as the gas mains replacement programme proceeds. Emissions have fallen by almost 19,000 tonnes in three years, or the equivalent of 398,893 tonnes of CO_2. This was calculated using a methane global warming potential of 21, based on Defra's 2012 guidelines for reporting Greenhouse Gases.