



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 last theme is supporting improvement in all aspects of the environment. Beyond the climate change agenda, the gas and electricity industries affect the environment through other emissions and their impacts on our countryside and communities. We are committed to working with all stakeholders to ensure that we take these wider considerations into account in all of our decisions and provide advice where relevant.

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Indicator 16: Impacts of electricity generation

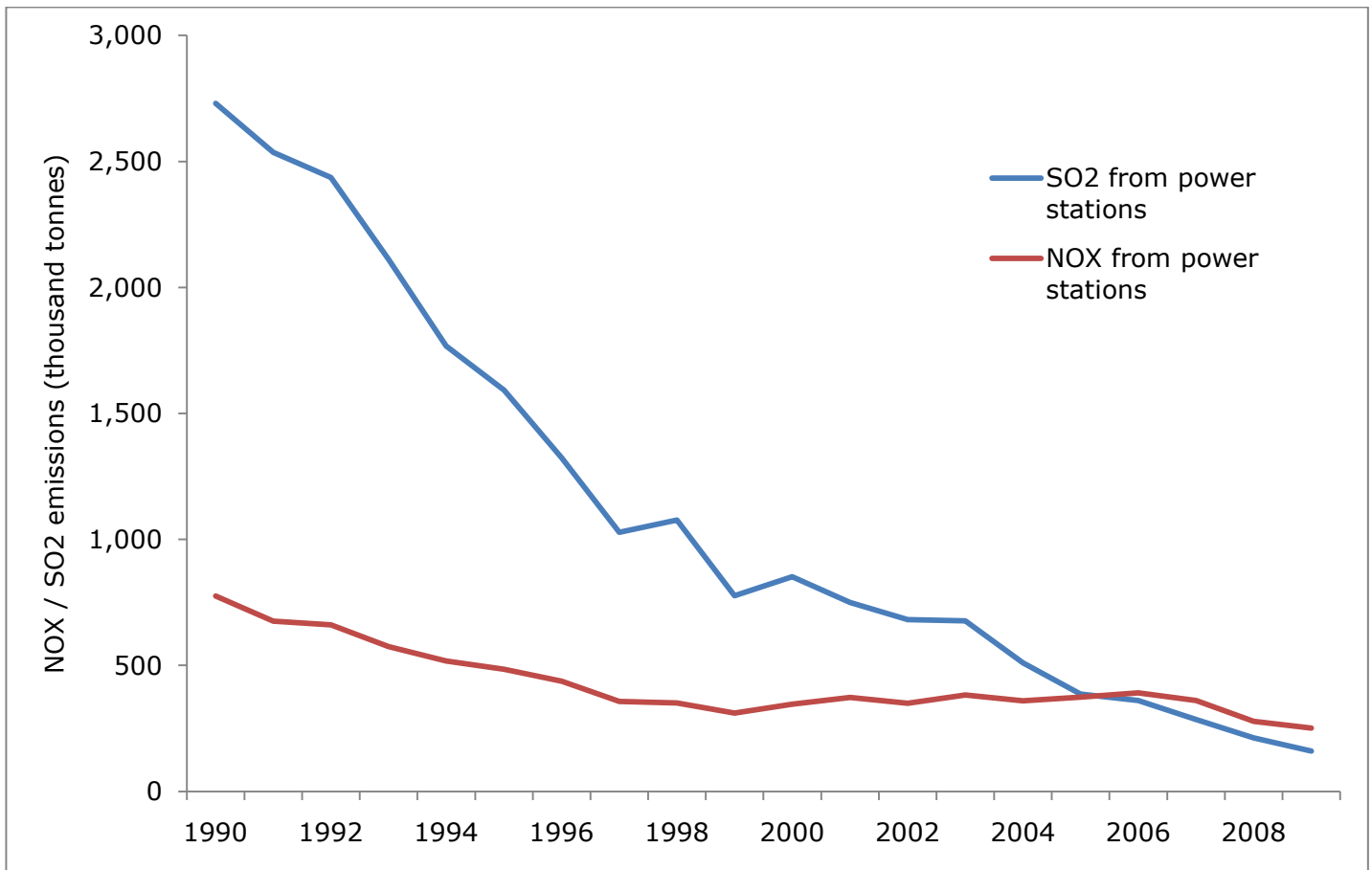


Figure 28 - NO_x and SO₂ emissions from power stations (updated January 2012)

Source: Defra

SO₂ emissions from power stations have decreased to less than 6% of their 1990 values, and account for 40% of total UK SO₂ emissions. NO_x emissions are now at their lowest levels since records began, and account for 23% of total UK NO_x emissions.

Level of Waste	2004 Inventory	2006 Inventory	2007 Inventory	2008 inventory	2009 Inventory	2010 Inventory	Change
Low-level waste	20,900	28,200	196,000	242,000	281,000	66,000	-215,000
Intermediate-level waste	82,500	90,200	92,500	96,200	100,000	94,300	-5,700
High-level waste	1,890	1,890	1,730	1,700	1,720	1,620	-100
Total	105,290	120,290	290,230	339,900	382,720	161,920	-220,800

Table 1 - Volume of radioactive wastes in stock (in cubic meters) (updated January 2012)

Source: Nuclear Decommissioning Authority

This table shows the figures that have been calculated from the actual stock of conditioned waste in 2007 and increased by the estimated annual waste arising thereafter. The significant drop in low-level waste between 2009 and 2010 is due to the disposal of a large quantity of the 2009 stock.

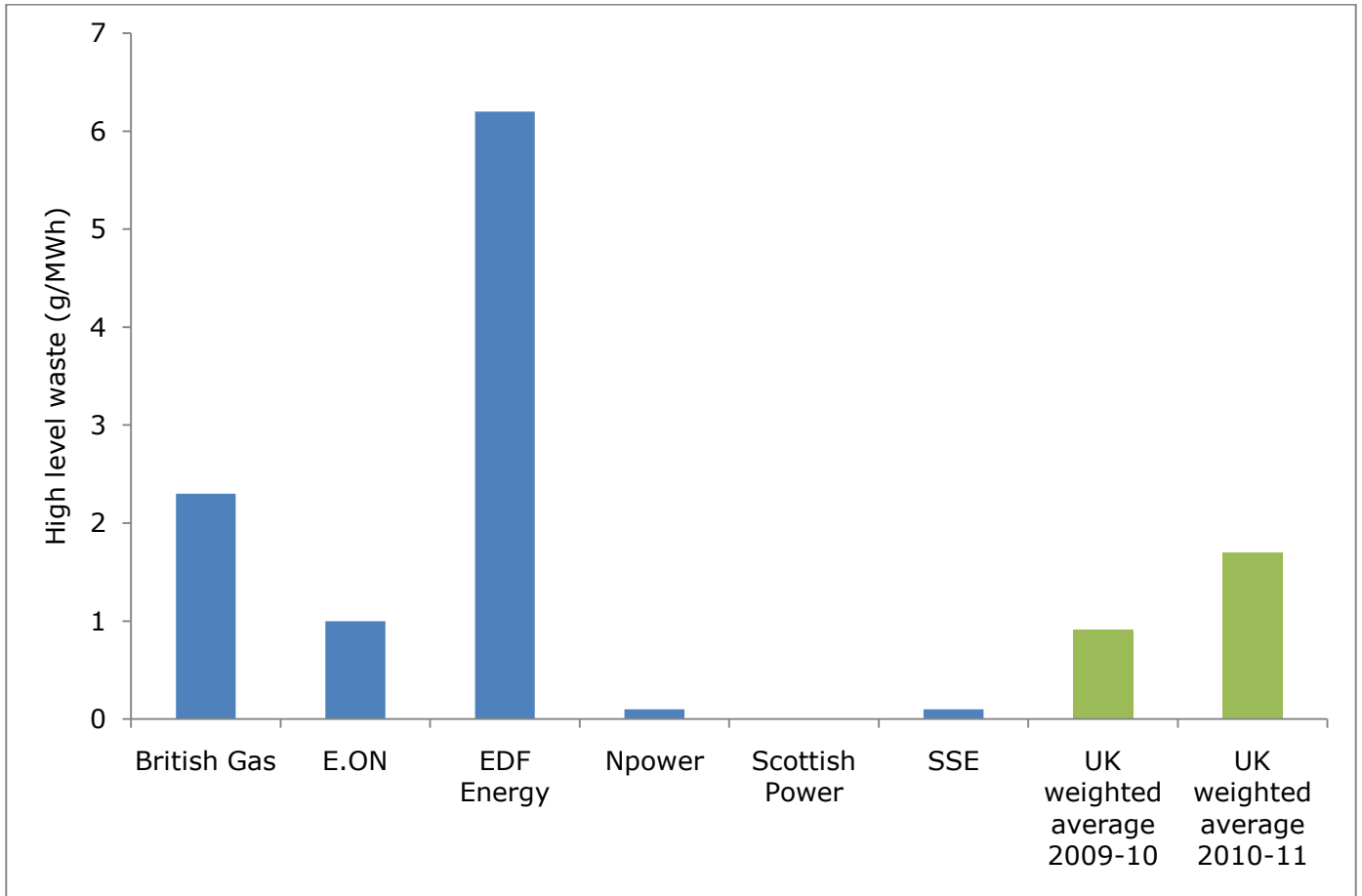


Figure 29 - High level nuclear waste from energy suppliers and the UK average 2010-11 (updated January 2012)

Source: electricityinfo.org

The chart above shows the proportion of high-level radioactive waste created per unit of electricity supplied by each of the 'Big Six' suppliers, as well as a weighted average across the UK. The average has increased significantly since last year, mostly due to the increase in EDF's creation of waste from 1.2 to 6.2 g/MWh.

Indicator 17: Impacts of electricity and gas networks

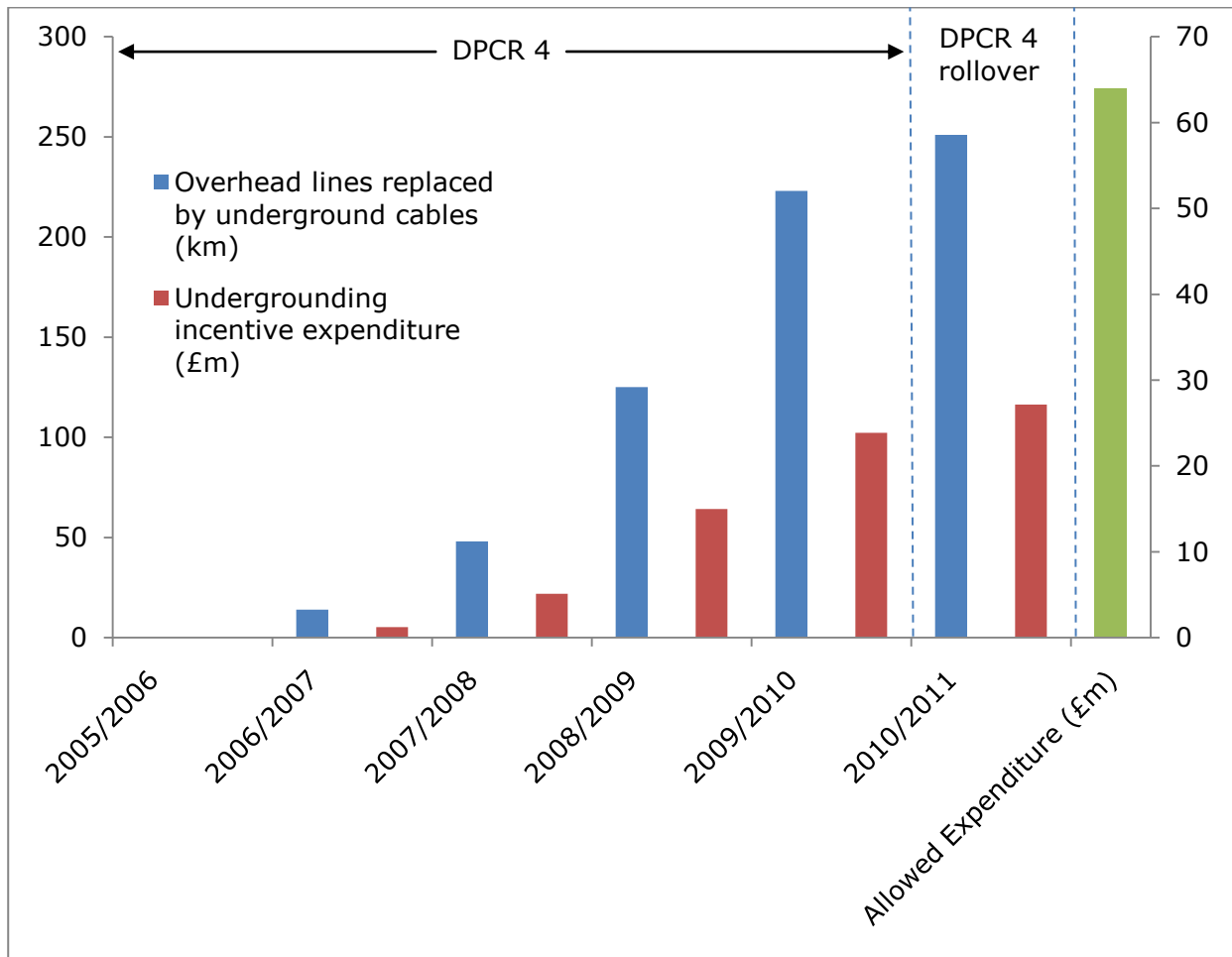


Figure 30 - Cumulative Electricity distribution visual amenity incentive (updated January 2012)

Source: Ofgem

The undergrounding displayed in this graph was incentivised by the fourth Distribution Price Control Review (DPCR4), under which distribution network operators were permitted to spend up to £64m on undergrounding cables. DPCR4 came to an end in 2010 but unused visual amenity allowance can be rolled over, hence the spend of just over £3m in 2010/11. The new 2010-2015 price control arrangements, DPCR5, have retained the visual amenity incentive.

Network Type	Year	Fluid-filled cables in use (km)	Volume of fluid used to top-up cables (l)
Distribution	2006/2007	6,600	451,939
	2007/2008	6,495	452,353
	2008/2009	6,475	372,303
	2009/2010	6,378	381,462
	2010/2011	6,217	377,240
Transmission	2006/2007	982	43,132
	2007/2008	972	27,528
	2008/2009	971	34,617
	2009/2010	939	26,519
	2010/2011	918	8,786
Total	2006/2007	7,582	495,071
	2007/2008	7,467	479,881
	2008/2009	7,446	406,920
	2009/2010	7,318	407,981
	2010/2011	7,135	386,026

Table 2 - Use of insulating oil in fluid-filled cables (updated January 2012)

Source: Ofgem

There has been an overall decrease in the length of fluid-filled cables used by the distribution companies, although the figures for several individual companies increased from 2009/10 to 2010/11. There has also been a significant decrease in the volume of top-up fluid used by transmission companies; this is because sections which were leaking in previous years have now been repaired or removed.