Emissions of Sulphur Dioxide and Nitrogen Oxides from Large Combustion Plants: 1996-2015

Annual Large Combustion Plant emissions (thousand tonnes)

Why this measure is important
Sulphur dioxide (SO$_2$) and oxides of nitrogen (NOx) affect human health through respiratory damage, and ecosystem health through acidification. Oxides of sulphur, including SO$_2$, and NOx are released into the atmosphere through the combustion of fossil fuels.

Background
Data are obtained from the Large Combustion Plants Directive (LCPD) report, which is compiled for the United Kingdom LCPD submission to the European Commission.

Trend
In 2015, SO$_2$ emissions from large combustion plants decreased by 27% compared with 2014 and NOx emissions fell by 13% over the same period, mainly due to lower emissions from Longannet power station. Overall, SO$_2$ emissions from large combustion plants decreased by 87% between 1996 and 2015 and NOx emissions decreased by 58%. The 2015 SO$_2$ and NOx emissions are the lowest on record.

Factors affecting trend
Previous rises in emissions (for example, in 2006 and 2010) coincided with periods of cold weather that led to increased emissions from the electricity supply sector. This was in part due to increased electricity production at Longannet and the increased use of domestic coal that has a higher sulphur content. Trends in emissions from Large Combustion Plants can also be affected by the relative prices of coal and gas. The large decrease in SO$_2$ emissions can be partly attributed to the closure of Cockenzie power station in March 2013.

Source: Scottish Environment Protection Agency