Noxious emissions: where does all the NOx come from?

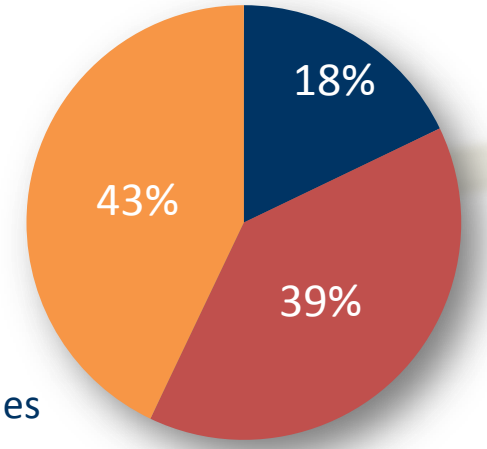
Oxides of nitrogen (NOx), visible as a brown haze, form when fossil fuels are burnt. To reduce this harmful pollutant, ever-tighter limits have been imposed on coal-fired power stations. Yet, air quality in our towns and cities is still poor.

Why?

Perhaps because emissions from diesel vehicles are grossly under reported. In 2011, the European Commission Joint Research Centre (JRC) found that real-world NOx emissions might be 4x to 7x greater than measured in lab tests.[1]

Reported EU NOx emissions, 2013[2]

- electricity and heat production, including from coal
- road transport
- other sources

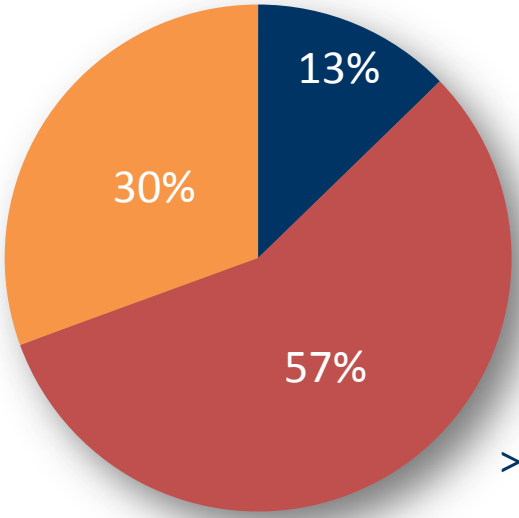


8 176 thousand tonnes

?

Estimated NOx emissions, 2013

based on JRC findings



>10 000 thousand tonnes

In most Member States, NOx emissions from transport are estimated using COPERT IV software and "real-world" HBEFA engine-emission factors. Governments have known that diesel engines emit more NOx than permitted, perhaps twice as much,[3] … or perhaps 4x … or 7x.

1 *Analyzing on-road emissions of light-duty vehicles with Portable Emission Measurement Systems (PEMS)*, European Commission Joint Research Centre, EUR 24697 EN – 2011, Luxembourg: Publications Office of the European Union.

2 *EU emission inventory report 1990–2013 under the UNECE Convention on Long-range Transboundary Air Pollution (LRTAP)*, Technical report No 8/2015, European Environment Agency, 2 July 2015.

3 "The European Handbook of Emission Factors for Road Transport (HBEFA)", Martin Schmied, Head of Transport and Environment Division, INFRAS, Germany, 19 May 2014.

With more EU legislation on its way, policymakers need to look again at the sources of air pollution. Coal has cleaned up its act, others should as well.

#believeincoal

rev.02, Oct 2015

EURACOAL