engines – this is because PM emissions from petrol engines are inherently very low. Finally, the Euro 6 standard for NO_X for diesel cars is less than half the Euro 5 standard.

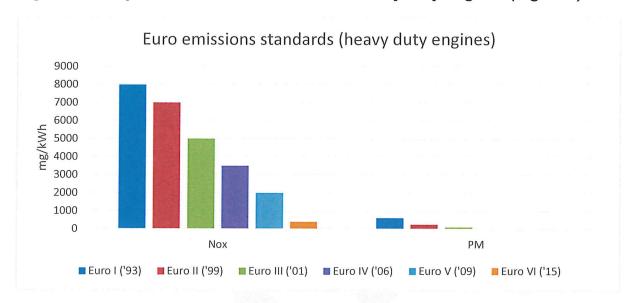


Figure 2: European emissions standards for heavy duty engines (mg/kWh).

These will mostly be diesel, but the same standards would apply to larger engines running on other fuels such as gas or biofuels.

The key thing to note from Figure 2 above is that the standard for NO_X has been lowered even more from Euro V to Euro VI than was the case for passenger cars.

The standards shown above are those that vehicle and engine manufacturers are required to meet over a standard test cycle. It has always been acknowledged that these standard cycles were not a perfect representation of real world driving, but the full effect of this has only recently become apparent, as the introduction of Euro 4 and 5 vehicles failed to improve air quality as expected. More recently still, portable emissions monitoring (PEMS) has become easier and cheaper, and so several studies have tested vehicles in real world driving to assess the true difference between the test cycle and on-road performance.