

Road Transport Projections: April 2009 Base

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**NAEI stakeholder meeting -
Monday 28th September**

Road Transport Projections: Methodologies & Assumptions in April 2009 Version (1)

- DfT/TRL vehicle emission factors, emission degradation rates and fuel effects (finalised versions, April 2009)
- Euro 5/V and 6/VI vehicle emission standards and EU Fuel Quality Directives
- DfT traffic projections for GB (exc London): November 2008 BAU by road, vehicle, area type
 - [Malcolm Jay, National Transport Model \(NTM\) Team, ITEA Division, DfT](#)

Road Transport Projections: Methodologies & Assumptions in April 2009 Version (2)

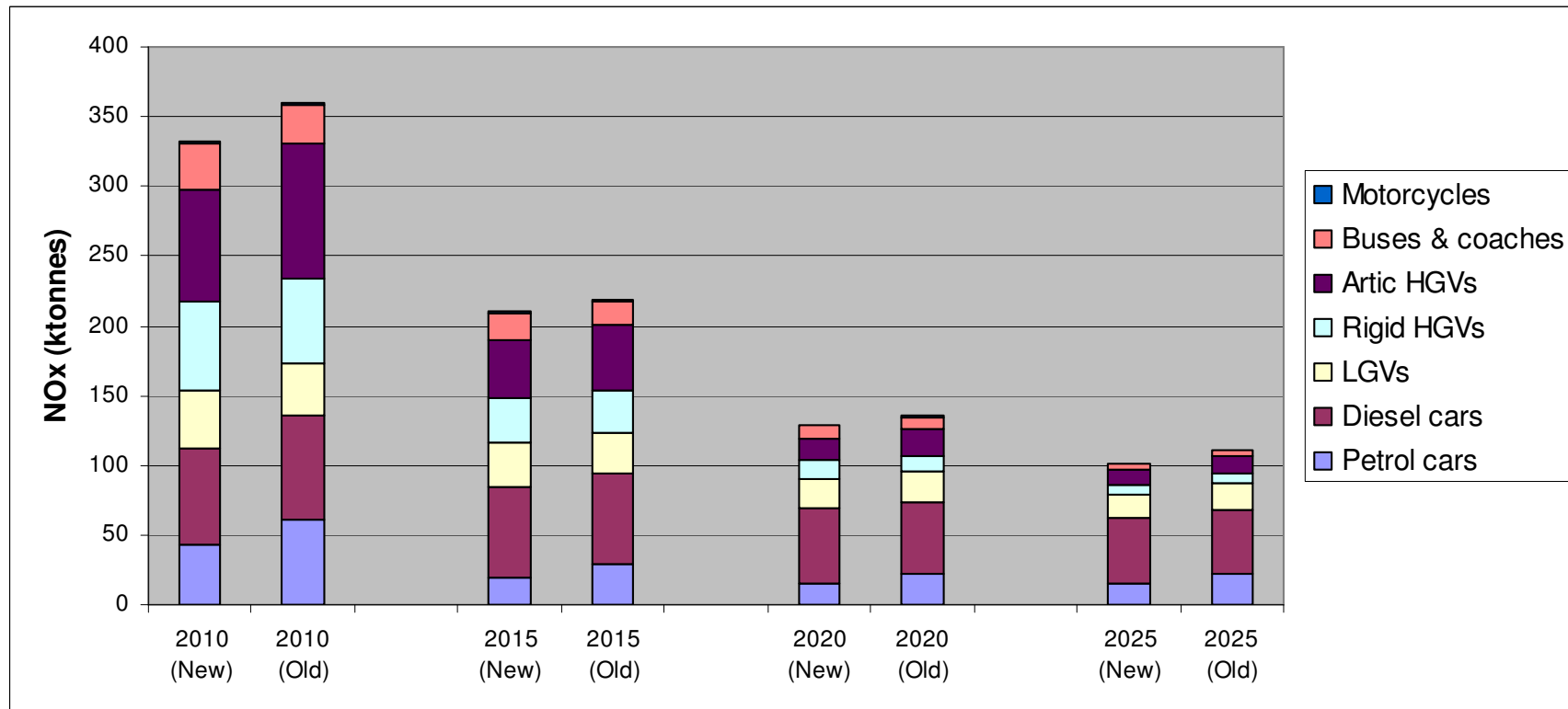
- TfL traffic projections for London
- Revised data on vehicle speeds (road, vehicle, area type)
- Revised (higher) catalyst failure assumptions (DfT)
- Diesel car penetration rates reach 43% by 2020 (slower rate of increase than before)
- Different diesel/petrol car mix on different road types (more mileage by diesel cars on motorways)
- London LEZ (all phases included)
- Biofuel uptake and effects on emissions

Road Transport Projections: Methodologies & Assumptions in April 2009 Version (2)

- Revised vehicle turnover assumptions:
 - New vehicle sales
 - Vehicle survival rates
 - Other TfL fleet composition data (London buses & taxis)
 - Car fleet in N Ireland
- Revised cold start emission methodology
- Revised evaporative emission methodology

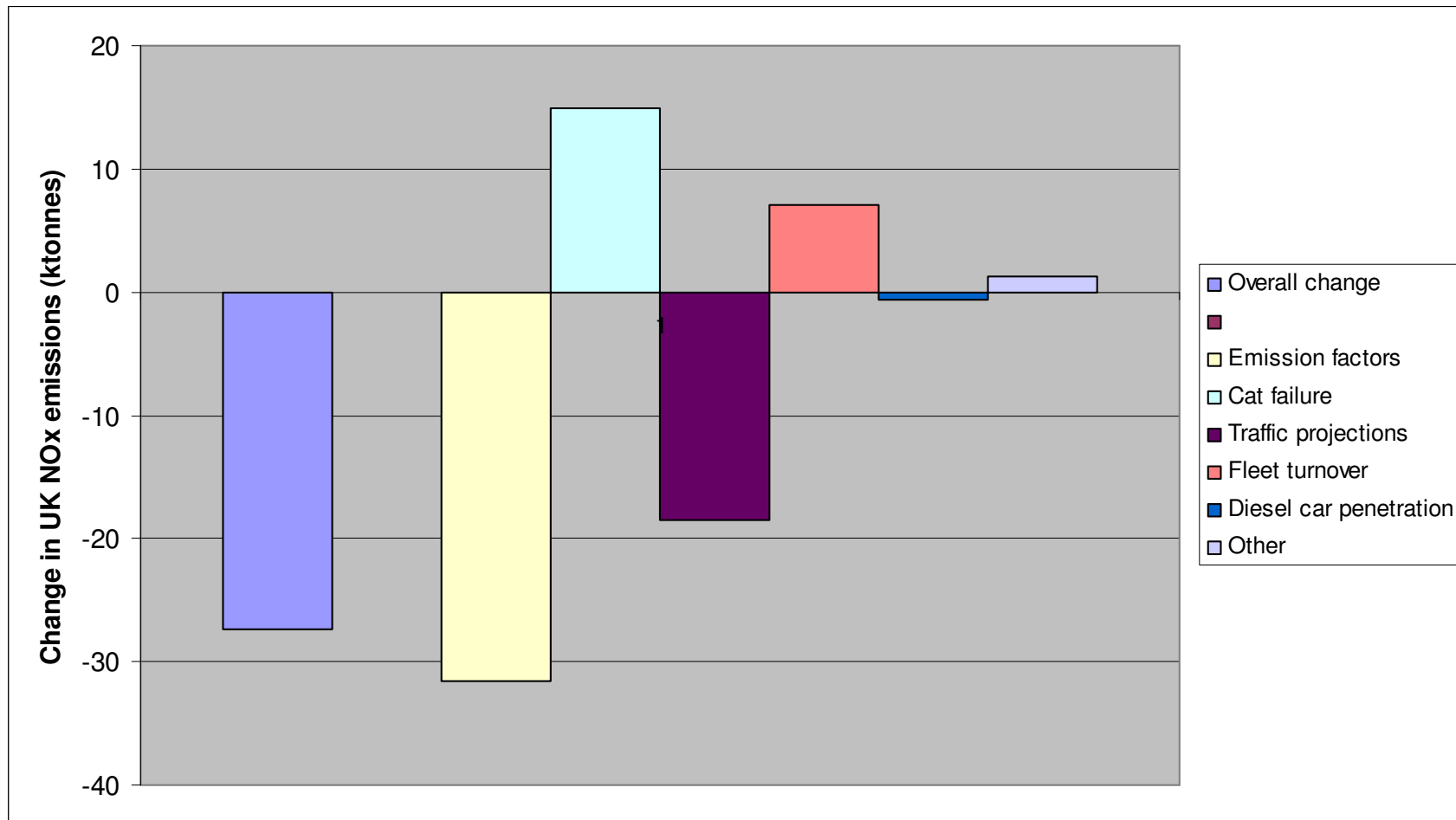


UK Road Transport Emissions: NO_x

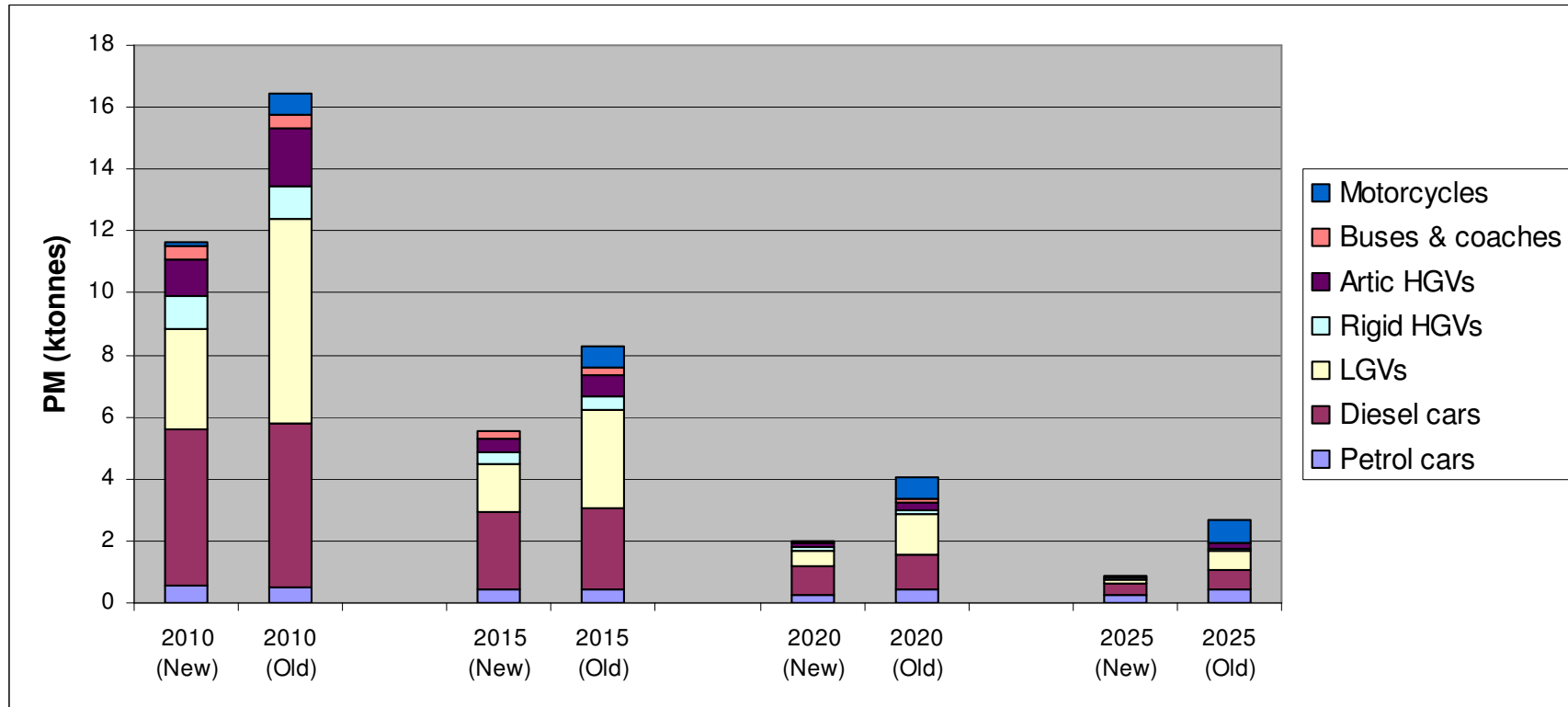


ktonnes	2010	2015	2020	2025
Old	359.4	218.2	135.2	110.7
New	332.0	210.4	129.3	101.6
Diff	-27.4	-7.8	-5.9	-9.1
% diff	-8%	-4%	-4%	-8%

Causes of Changes in UK NO_x Emissions in 2010

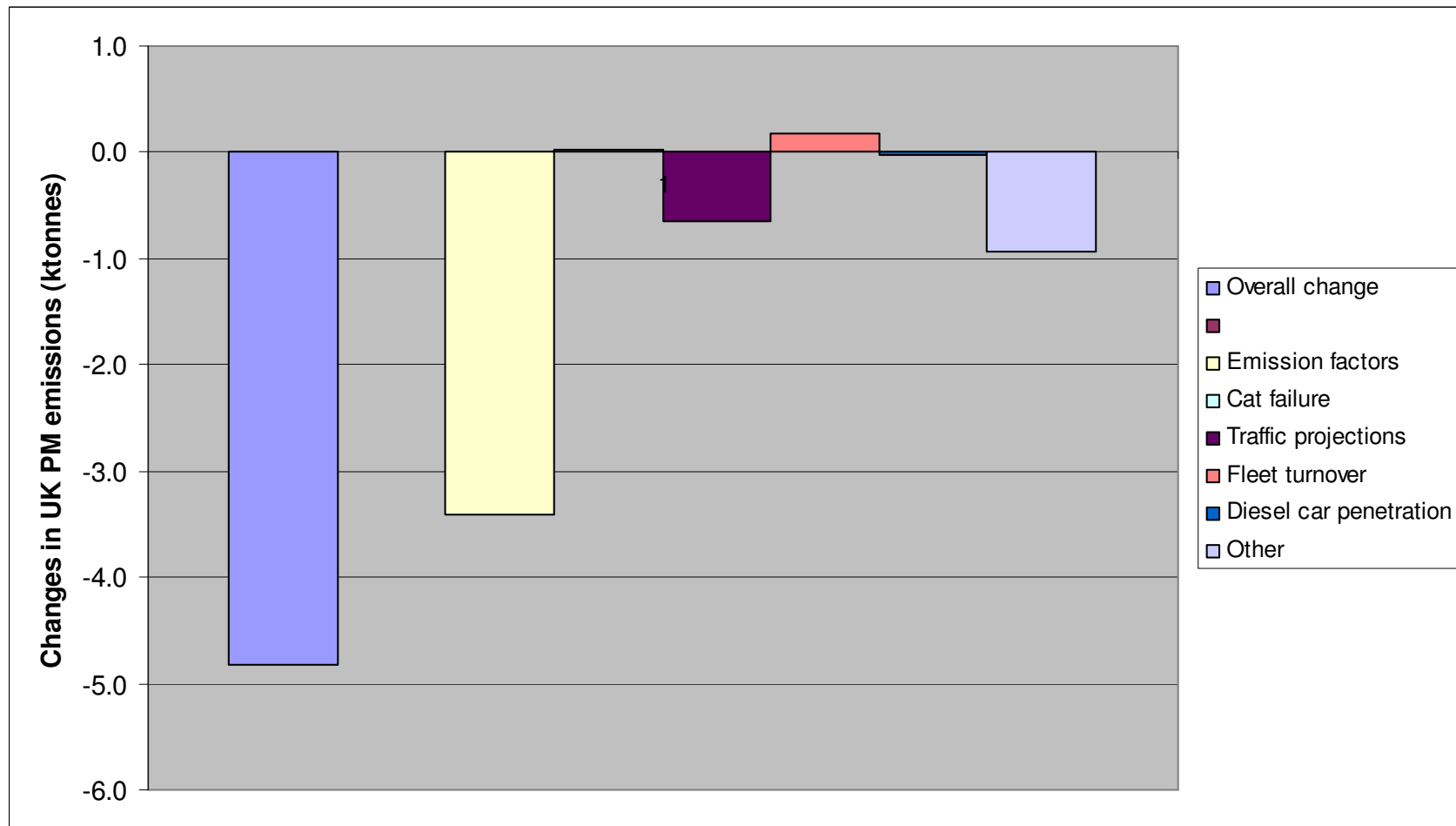


UK Road Transport Emissions: PM

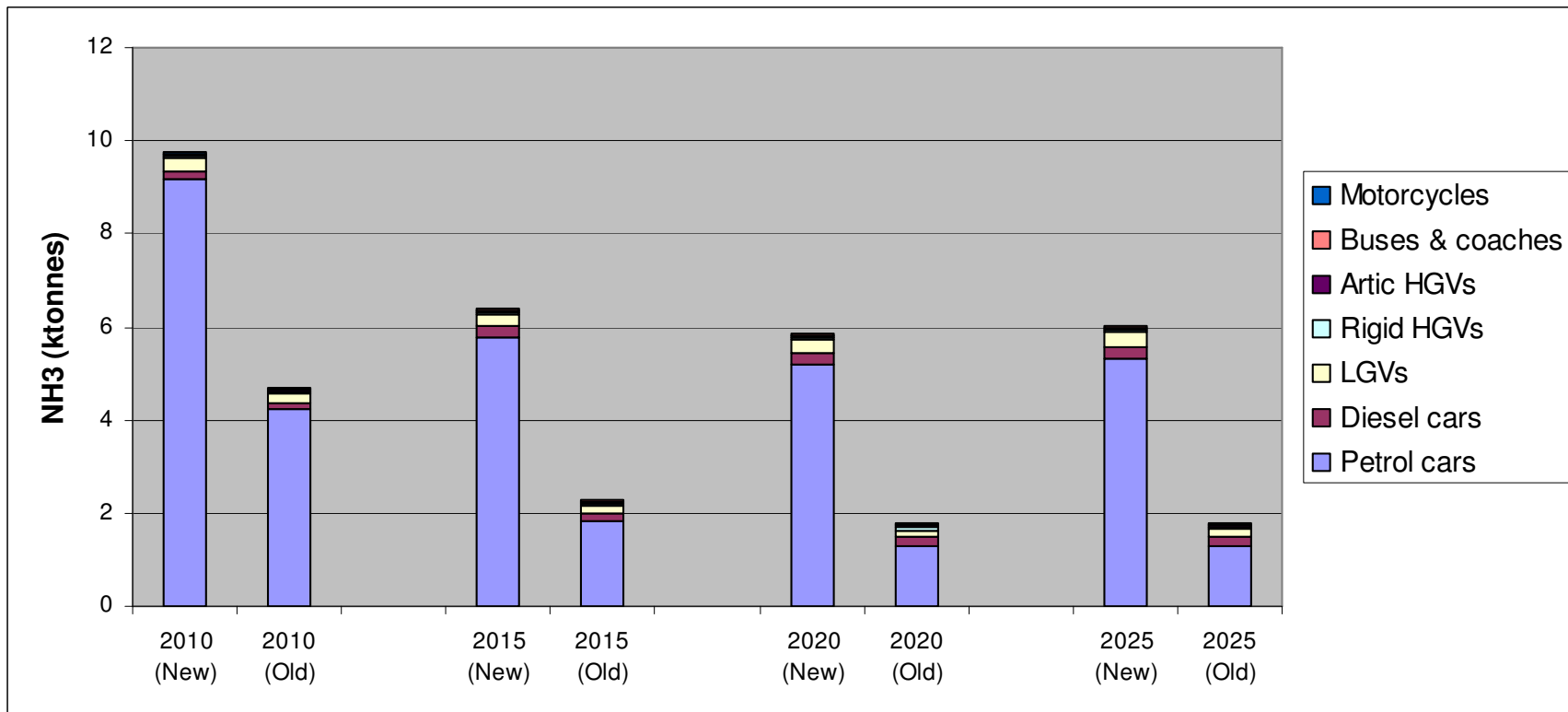


ktonnes	2010	2015	2020	2025
Old	16.4	8.3	4.0	2.7
New	11.6	5.6	2.0	0.9
Diff	-4.8	-2.7	-2.0	-1.8
% diff	-29%	-33%	-50%	-66%

Causes of Changes in UK PM Emissions in 2010

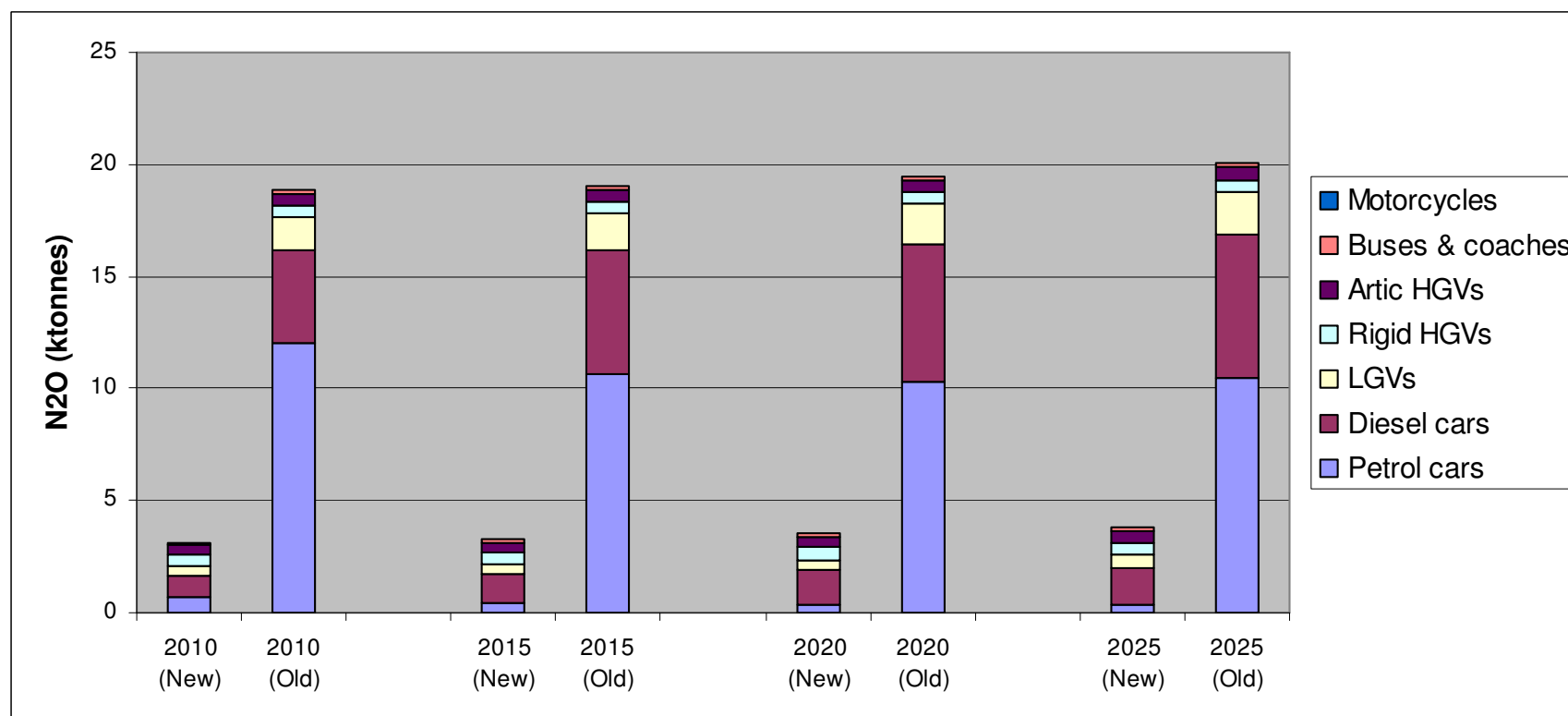


UK Road Transport Emissions: NH₃



ktonnes	2010	2015	2020	2025
Old	4.7	2.3	1.8	1.8
New	9.7	6.4	5.9	6.0
Diff	5.1	4.1	4.1	4.2
% diff	108%	180%	230%	236%

UK Road Transport Emissions: N₂O



ktonnes	2010	2015	2020	2025
Old	18.8	19.0	19.5	20.1
New	3.2	3.3	3.6	3.8
Diff	-15.7	-15.7	-15.9	-16.3
% diff	-83%	-83%	-82%	-81%

Other transport

- Off-road machinery
 - EU Directives on emissions from new engines up to Stage IV
 - Proxy data from UEP on changes in activity (e.g. industrial output, agriculture...)
- Shipping
 - Entec studies (2008/2009)
 - “bottom-up” method based on shipping movements



UK Low Carbon Transition Plan

- Carbon reduction plan up to 2020 across sectors
- Carbon budgets for all UK Government Departments
- Published in July 2009 in parallel with “*Low Carbon Transport: a Greener Future*”

UK Low Carbon Transition Plan: Transport Technologies

- New car CO₂ target 95 g/km by 2020.
- EU new car CO₂ target of 130 g/km for 2015 brought forward to 2011 for Government department fleet procurement
- Pressing EU plans for CO₂ reductions for new vans
- £30m on several hundred low carbon buses over next 2 years
- Electric vehicle demonstration programme (340 vehicles) and £30m support for electric vehicle recharging infrastructure
- £2-5k grants on ultra-low carbon cars from 2011
- 10% of transport energy from sustainable renewable sources by 2020

UK Low Carbon Transition Plan: Transport Demand Management

- Sustainable Travel Cities competition
- £140m to promote cycling (2008-11)

UK Low Carbon Transition Plan: Other Transport

- Rail
 - Low carbon rail system – greater electrification
- Aviation
 - Inclusion in EU ETS
 - EU targets to reduce CO₂ emissions from new aircraft by 50% per pkm; 80% for NO_x
 - Target to limit aviation CO₂ emissions to 2005 levels by 2050
- Shipping
 - Support IMO to agree CO₂ reduction measures

UK Low Carbon Transition Plan: Impact on Emission Projections

- Measures affecting
 - transport technology (emission factors), and
 - transport demand (activity levels)
- All measures should bring benefits to other pollutant emissions
 - the challenge is forecasting how much

Any Questions ?

