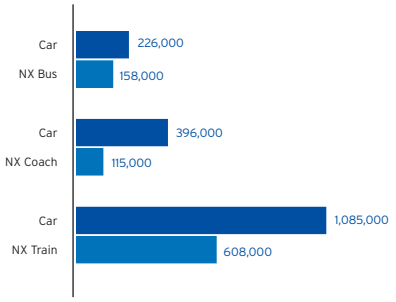
PROTECTING OUR ENVIRONMENT...

WE HAVE MADE GOOD PROGRESS AGAINST THE OBJECTIVES WE IDENTIFIED IN LAST YEAR'S CORPORATE RESPONSIBILITY REPORT.

ENVIRONMENTAL MANAGEMENT The most significant environmental issues that arise from our operations are emissions of greenhouse gases (GHG) and other atmospheric pollutants. Other important issues include depot infrastructure and condition of land, incidents and prosecutions, nuisance and waste. The arrangements for environmental management continue as described in our CR Report 2002.

GREENHOUSE GAS EMISSIONS We believe that public transport will play a key role in the transition to a low carbon economy and in meeting Government targets for reducing the emissions of GHG. Journeys made by public transport instead of the car or plane dramatically reduce the emissions of GHG. Chart 18 demonstrates that the reduction in GHG emissions which arises by people using our bus, coach or train services instead of the car.

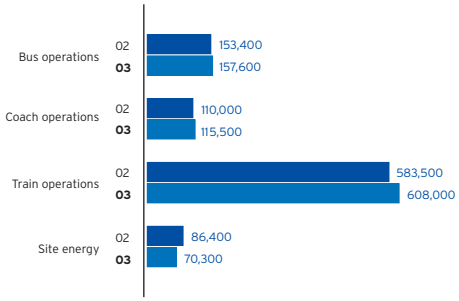
Relative GHG emissions from journeys using National Express (NX) services and travelling by car (tonnes of CO_2e) **(Chart 18)**



The NX column shows the emissions arising from our fleet operations. The car column represents the emissions had 80% of our customers travelled by car instead of our services. The difference between the bars represents the emissions saved as a result of people travelling with NX services rather than by car.

As shown in Chart 19, GHG produced from our UK operations rose by 2% during the year. The total represents 0.14% of the latest reported total UK GHG emissions.

Total GHG from all activities (tCO_2e) **(Chart 19)**



Emissions from the operation of our fleet increased by 4% from 2002, these emissions represent 0.69% of the UK transport total. There is an underlying increase in GHG emissions arising from bus and coaches due to modern diesel engines being less fuel efficient than the older more polluting vehicles they replaced. There was an underlying decrease in GHG emissions arising from trains.

Chart 20 shows the estimated emissions of GHG per passenger kilometre. Our figures for the bus and coach operations compare well with the standard emissions factors provided by the World Business Council for Sustainable Development (WBCSD). The emission factor for trains agrees with the figures provided by DEFRA.

Estimated emissions per passenger kilometre ($kgCO_2e$/pass.km) **(Chart 20)**

Bus	0.100
Train	0.062
Coach	0.032

The assessment of our GHG emissions was again undertaken by the Edinburgh Centre for Carbon Management using the guidelines developed by the WBCSD.

We recognise that a comprehensive climate change strategy encompasses both:

- mitigation measures to reduce the emissions of greenhouse gases and;
- adaptation measures to respond to the consequences of both changed climate and the changing business environment as Government implements policy to curb emissions.

In 2003 we carried out 24 energy efficiency audits across our depots and stations. However, as Chart 19 shows, just over 93% of our GHG emissions arise from the energy we use to power our fleet. So any significant reduction is dependent on improvements in the energy efficiency of our fleet.

Electric trains, which make up 58% of our train fleet, have the potential to be carbon neutral if the electricity used is generated from renewable resources. In the short term, and as we explained in last year's Report, emissions of GHG from our diesel trains, buses and coaches will increase slightly. Consequently it is difficult to set absolute targets for reducing emissions from our diesel fleet. In the medium term we anticipate new technology will play a key role. We are committed to closely tracking the development of new technology and this year a senior executive from our bus division became a director of the Low Carbon Vehicle Partnership.

We work hard to ensure that our operations can manage changes in the weather. In 2003 we undertook a climate change risk appraisal of our ScotRail business to gain a greater understanding of the safety, operations and financial implications of weather changes. In 2002, severe flooding had a major impact on ScotRail operations and we are keen to improve the resilience of the network and ensure that robust contingency plans are in place. The risk appraisal exercise identified the high risk areas of the network and possible additional controls. As Government Policy to tackle climate change takes effect, the business environment will change. The cost of energy is likely to increase significantly but there may be considerable opportunities if transport projects that save carbon are permitted to enter into emissions trading schemes.

AIR EMISSIONS In last year's Report, we discussed how a range of factors influence the emission of air pollutants arising from vehicle exhausts. Combined with difficulties in estimating the average distance travelled by a passenger, these factors make it hard to develop meaningful benchmarks of performance.

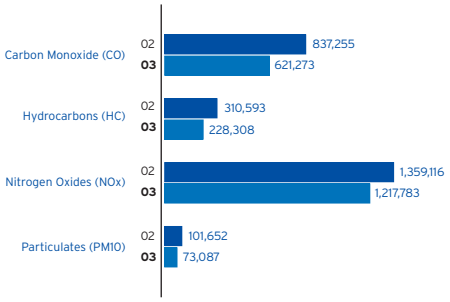
In order to improve benchmarking, TWM participated in the Benchmarking of Energy and Emissions Performance project (Bestrans), which is funded by the EU. This aims to develop a benchmarking methodology for energy and emissions in passenger transport. The final report will be published in 2004 and we aim to continue our involvement in the study.

Charts 21 to 32 show the estimated total emissions of air pollutants arising from our bus, coach and train operations. In Charts 26 to 28 we attempt to give an indication of both the effectiveness (emissions expressed on a per passenger journey basis) and the efficiency (emissions expressed per distance travelled) of the bus and coach travel. In Chart 30 we have provided an estimate of the emissions per passenger kilometre arising from trains.

Chart 31 shows the impact that raising the average speed has on air emissions from buses. This demonstrates the important environmental benefits delivered by bus and coach prioritisation.

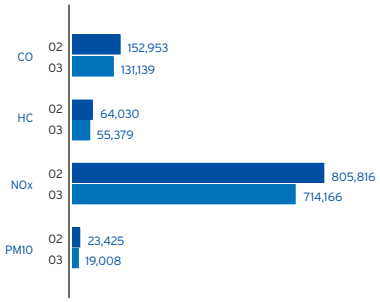
This year there has been consultation on low emission zones (LEZs) as a means of reducing pollution from road transport. The planned replacement of older vehicles with modern counterparts means that there will be a reduction in exhaust emissions in the future. We support initiatives to improve local air quality but caution that the early introduction of LEZs could potentially have a detrimental impact on improving air quality in the medium term if it reduces the availability of investment for the next generation of cleaner vehicles.

Total emissions arising from bus division (kilograms)
(Chart 21)



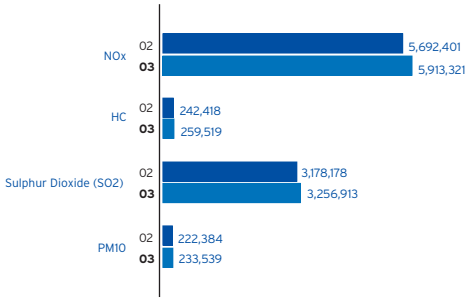
We have used the emissions factors provided in the new database on the National Atmospheric Emissions Inventory (NAEI) website (www.naei.org.uk). We have assumed a CRT will reduce the emissions of particulates by 90%. The average speed of bus was 18 mph.

Total emissions arising from coach division (kilograms)
(Chart 22)



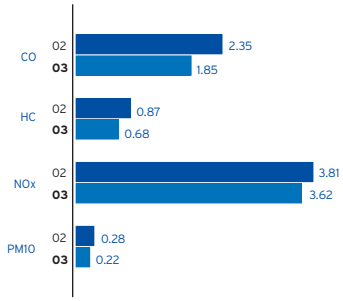
An average speed was estimated to be 32 kmph for our airport services and 64 kmph for our scheduled network.

***Total emissions arising from diesel and electric trains (kilograms)* (Chart 23)**

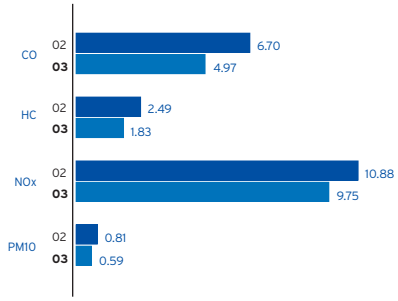


We have calculated emissions for electric trains based on the power generating mix in the public power supply.

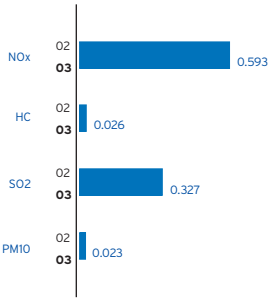
***Effectiveness of Bus division (grams per passenger journey)* (Chart 24)**



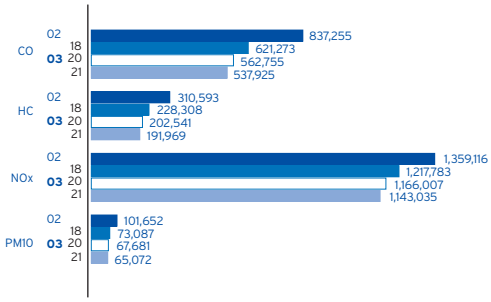
***Efficiency of Bus division (grams per kilometre)* (Chart 25)**



***Trains division emissions per passenger km (grams per passenger km)* (Chart 26)**

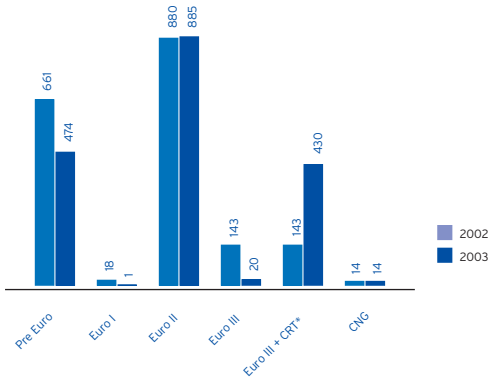


***Effect of increasing average speed from 18 kmph on bus emissions (kilograms)* (Chart 27)**



BUSES The average age of our bus and coach fleet fell from 8.0 years to 7.8 years, during the year due to new vehicles entering the fleet.

***Fleet profile by engine type* (Chart 28)**

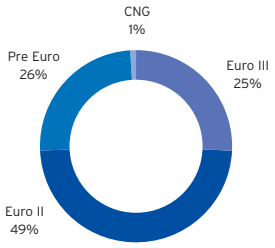


25% of our bus fleet is Euro III compliant and 24% of buses are fitted with continuous regenerating traps.

***Fleet profile by engine* (Chart 29)**

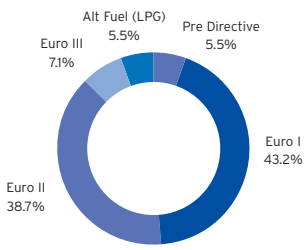
Total Fleet: 1,824

Buses (%)



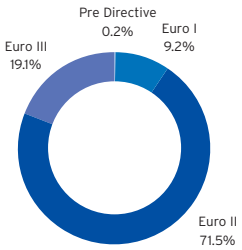
***Owned coach fleet* (Chart 30)**

Total Fleet: 310



Contracted coach fleet **(Chart 31)**

Total Fleet: 414



Good maintenance is essential in minimising pollution. TWM's engineering operations are certified to the quality management standard ISO 9000:2000, the first independent bus company to achieve the revised standard. We test the exhaust emissions for each bus every 28 days. Emissions test data, undertaken by the Vehicle and Operator Services Agency (VOSA), shows 99.9% pass rate for exhaust smoke emissions and 100% for emission checks at the roadside. We received a small number of complaints from the public about exhaust emissions but on testing the relevant bus none were found to be in breach of legislation. The overall VOSA PSV annual pass rate was 95%.

COACHES The average age of our contracted coach fleet for scheduled operations is 3.7 years and 91% of the fleet is Euro II or Euro III (70% in 2002). The average age of our owned coach fleet is 5.3 years and 51% is Euro II / Euro III or LPG.

We test the exhaust emissions for each of our owned coaches every 14 or 28 days depending on their mileage. Emissions test data undertaken by VOSA shows 100% pass rate for exhaust smoke emissions as does the PG9 road side spot checks. We have only received one complaint about exhaust emissions but on testing the relevant coach was found to be within the legal parameters. There were no complaints received regarding exhaust emissions through the Well Driven scheme.

TRAINS The average age of our rolling stock is 14.6 years. 58% of our rolling stock is electric, with the remainder diesel powered.

In 2004 we anticipate that the EU will for the first time set exhaust emissions limits for new diesel trains. Once legislation is in place, we will ensure that any new trains or engines that we lease from the rolling stock companies will comply with the new limits.

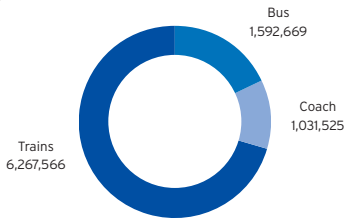
Currently there is no legislation covering the exhaust emissions from in-service diesel engine trains. ScotRail is the first TOC to implement an annual procedure, based around standards developed for heavy duty diesel road vehicles, to test exhaust emissions from all its diesel trains.

The level of sulphur in gas oil used by diesel train engines can have a significant impact on exhaust emissions and the effectiveness of pollution abatement technology. In 2004 we are committed to working with industry partners to develop a network-wide strategy for changing to lower sulphur gas oil.

WASTE During 2003 we established regional waste management contracts for controlled waste in the Midlands, Wales and Wessex. We are extending this initiative to the South-East. Our supplier, First Procurement Associates, are supporting us in the process and they have estimated that we produce 8.9 million kgs of non-hazardous waste (see Chart 32). Currently, 99% of this waste is disposed to landfill.

Controlled waste data (kilograms) **(Chart 32)**

Total: 8,891,760



As the bulk of non-hazardous waste is generated by our customers and because collections are not weighed, it is not easy to set targets for reduction. However, we will work with contractors to identify opportunities to recycle more non-hazardous waste at sites where this is economically viable.

Hazardous waste is managed at a local level. We estimate that approximately 90% by weight is recycled.

DEPOT INFRASTRUCTURE

Contaminated land

None of our owned or leased properties have been classified as contaminated under Part IIA of the Environmental Protection Act 1990. Drainage plans are in place for all owned depots. We started the development of a new train maintenance depot at Eastfield in Glasgow on a brown field site.

Fuel and chemical storage

This year we have obtained planning permission for above ground fuel storage tanks at our Coventry bus depot. We will remove the underground fuel tanks in early 2004. This will mean that all our fuel storage tanks will be above ground.

NUISANCE, INCIDENTS AND PROSECUTIONS
There were no new environmental prosecutions, prohibitions or improvement notices during 2003. However, in March Maintrain was fined £1,000 for an incident which resulted in a breach of the discharge consent to sewer in 1999 – full information on the incident was provided in last year's Report.

The Enforcement Notice served due to an alleged noise nuisance from the public address system at Stourbridge Junction was withdrawn after Centro funded improvements. The outstanding issue relating to an Abatement Notice issued in 2000 by Bromsgrove District Council, concerning wheel squeal, has been adjourned until early 2004.

WATER Total water consumption during the year was 1,219,196 m^3 compared to an estimate of 1,380,000 m^3 in 2002, a decrease of 11.5%. In our bus division all bus washes are fitted with partially recycling units and we have benchmarked our performance as 60 m^3 of water per buses each year.

BIODIVERSITY National Express Group recognises the importance of wildlife and the habitats that support it. In order to understand better the issues we worked in partnership with the leading conservation organisation The Wildlife Trusts to develop a corporate biodiversity strategy.

Our land holdings do not make a significant contribution to biodiversity conservation. However, we will ensure that we always comply with the relevant legislation regarding the protection of wildlife.

In 2003 we raised awareness of biodiversity issues among our workforce by supporting the Wildlife Trusts' Basking Shark survey project, details of which are on our website. This initiative was chosen because it also helped raise the profile of climate change, which is a significant issue for public transport providers.

THE FUTURE In last year's Report we outlined some of the strategic environmental challenges facing the public transport sector. Many of these issues require industry-wide action and we are committed to playing our full role. In addition to supporting industry bodies, we chair the rail industry diesel emissions working group.

OBJECTIVES *for 2003*

- ✓ *Raised awareness of environmental management*
- ✓ *Developed a corporate environmental assurance programme*
- ✓ *Developed an environmental programme for the supply chain*
- ✓ *Supported initiatives to monitor and report on emission from public transport*

On-going *Improved waste management*

- ✓ *Improved energy and water efficiency at depots and stations*
- ✓ *Developed a corporate biodiversity strategy*

OBJECTIVES *for 2004*

Greenhouse gas emissions

- *Report on the Carbon Trust project and materiality of climate change*
- *Reduce energy consumption at depots and large stations (100 kWhr sites) by 5%*

Air emissions

- *Establish procedure for Group-wide testing of in service diesel trains*
- *Work with industry partners in developing a strategy for adopting lower sulphur fuel in trains*
- *Continue to replace older buses and coaches to maintain average fleet age*
- *Introduce a fleet of diesel-hybrid buses*
- *Update emission factors used for trains*

Depot infrastructure

- *Undertake risk assessments on condition of land at owned depot sites*

Environmental Management

- *Establish regional waste management contract for the South-East*
- *Provide training on environmental management and energy and water efficiency*
- *Extend the supply chain social, environmental and ethical audit programme chain to six key suppliers*
- *Undertake environmental audit at each subsidiary*
- *Improve benchmarking of performance relating to water consumption and waste generation*
- *Continue to support the Basking Sharks survey project*

CASE STUDY NO. 5

WORKING TOWARDS A LOW CARBON ECONOMY...

National Express Group is the only public transport company which has been successful in joining the Carbon Trust's carbon management pilot programme.

The Carbon Trust, an independent company, is funded by the Government with the aim of accelerating the UK's transition to a low carbon economy. The Trust is supporting a number of leading organisations, such as our Group, to develop and implement a carbon management plan.

The carbon management plan is not just about improving the energy efficiency of buildings and vehicles. It will also evaluate:

- the commercial viability of new technology and fuels
- ways in which we can adapt to predicted changes in the weather
- the opportunities of entering into greenhouse gas emissions trading schemes