



COMMISSION OF THE EUROPEAN COMMUNITIES

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**REPORT FROM THE COMMISSION TO THE COUNCIL AND
THE EUROPEAN PARLIAMENT**

**Quality of petrol and diesel fuel used for road transport in the European Union:
Fifth annual report
(Reporting year 2006)**

1. EXECUTIVE SUMMARY

Directive 98/70/EC¹ sets minimum specifications on health and environmental grounds for fuels to be used for vehicles equipped with positive-ignition and compression-ignition engines. Fuel quality is environmentally important because it affects engine pollutant emissions and thus air quality. It also affects the ease and cost with which desired pollutant and greenhouse emission limits can be achieved by manufacturers. Directive 2003/17/EC², amending Directive 98/70/EC, requires a further reduction of the sulphur content of petrol and diesel fuels.

Non-respect of the fuel specification can lead to increased emissions (for example excess oxygenates can increase NO_x emissions) and might damage engine and exhaust after-treatment systems (for example excess sulphur damaging catalysts) leading to higher air pollutant emissions. In order to ensure compliance with the fuel quality standards mandatory under this Directive, Member States are required to introduce fuel quality monitoring systems.

Article 8 of Directive 98/70/EC requires the Commission to publish annually, a report on fuel quality in the Member States. This fifth Commission Report summarises Member States' submissions on the quality of petrol and diesel, as well as the volumes sold, for the year 2006. All Member States except Malta submitted national reports for 2006.

The monitoring of fuel quality in 2006 shows that the specifications for petrol and diesel laid down in Directive 98/70/EC are in general met and again few exceedances were identified. For petrol the main parameters where exceedances were identified were research/motor octane number (RON/MON)³, summer vapour pressure⁴ and distillation/evaporation at 100/150°C⁵. For diesel the main parameters where exceedances were identified were sulphur content, distillation 95% point, cetane number and density.

Although several Member States reported non-compliant samples, in general fewer samples exceeded the limit values (and the limits of tolerance for the test methods) compared to previous years. Several of the new EU10 Member States previously reported significant numbers of samples non-compliant with limit values, but the number of non-compliant samples they reported has reduced significantly in 2006. Belgium reported a higher proportion (~3.5%) of non-compliant samples than other Member States in 2005 (though improved on previous years), however insufficient detail has been provided in 2006 to gauge actual non-compliance numbers.

¹ Directive 98/70/EC relating to the quality of petrol and diesel fuels and amending Council Directive 93/12/EEC O.J. L 350, 28.12.1998, p. 58

² Directive 2003/17/EC of the European Parliament and of the Council of 3 March 2003 amending Directive 98/70/EC relating to the quality of petrol and diesel fuels O.J. L 76, 22.3.2003, p. 10

³ Research Octane Number (RON) is a quantitative measure of the maximum compression ratio at which petrol can be used in an engine without some of the mixture self igniting in the engine. Self ignition leads to excess fuel consumption and an increase in Volatile Organic Compound and Carbon Monoxide emissions.

⁴ Vapour pressure is a measure of the propensity of the fuel to evaporate. It is regulated in summer because temperatures at that time of year can lead to high emissions of Volatile Organic Compounds, which are a precursor of ground level ozone. Exceedances will result in increased Volatile Organic Compound emissions.

⁵ The distillation parameter establishes the proportion of the fuel that evaporates at 100°C and 150°C. It limits the range of lighter components that can be blended in the petrol. Exceedances could lead to vapour locks and driveability problems.

Sulphur content for diesel was a particular problem in previous years (mainly for EU-10), due to the new mandatory <50 ppm level from the start of 2005. However, this problem appears to have been resolved in 2006.

The Commission is not aware of any negative repercussions on vehicle emissions or engine functioning related to these exceedances, but continues to urge Member States to take action in order to ensure full compliance. Most are doing so already, and details of action taken by Member States with regard to non-compliance are included, where provided, in the individual country chapters of the detailed report for 2006⁶. The Commission will continue monitoring compliance with the fuel quality requirements laid down in the Directive.

For the abatement of air pollution and the introduction of new engine technology it is important to note that the share of <10 ppm and <50 ppm sulphur fuels increased significantly from 2001 to 2006 for EU-15. From 2005, it was mandatory for all fuel to meet the <50 ppm sulphur level, and for fuels of <10 ppm sulphur to be introduced in all Member States. Average sulphur content in 2006 is substantially below that reported in 2004 as shown in table 1.

Table 1: Annual trend in average sulphur content in petrol and diesel fuels for the EU

Fuel/Year	EU average Sulphur Content, ppm						EU15	EU10
	2001	2002	2003*	2004*	2005*	2006#	2006*	2006#
<i>Petrol</i>	68	51	37	38	19	18	18	18
<i>Diesel</i>	223	169	125	113	25	22	22	17

*Excludes France, who failed to report in 2003 to 2005.

#Excludes Malta, who failed to report in 2006.

EU average includes EU10 country data from 2004.

National fuel quality monitoring systems still differ considerably; however, the Directive requirements are expected to promote greater homogeneity and to improve the quality of reporting.

2. INTRODUCTION

The specifications for petrol and diesel sold in the European Union are laid down in annexes to Directive 98/70/EC. From 1 January 2005 only one set of fuel specifications has applied. The Directive also requires Member States to report summaries of the quality of fuels sold in their territories. From 2004 onwards, Member States are required to report on their monitoring in accordance with European Standard, EN 14274⁷, or with systems of equivalent confidence. Article 8 of Directive 98/70/EC, as amended by Article 1(5) of Directive 2003/17/EC, requires the Commission to forward the results of Member States' fuel quality reporting. In compliance with this request, this fifth Commission Report summarises the

⁶ See http://ec.europa.eu/environment/air/transport/pdf/fqm_summary_2006.pdf

⁷ EN 14274:2003 - Automotive fuels - Assessment of petrol and diesel quality - Fuel Quality Monitoring System (FQMS).

quality of petrol and diesel, as well as the volumes sold, in the Community for the year 2006. Previous year's reports can be found on the Commission's web pages⁸.

3. NATIONAL MONITORING SYSTEMS

A number of different approaches have been used to implement Fuel Quality Monitoring Systems (FQMS) across the EU. These range from those based on European Standard EN 14274, with sampling at a range of fuel retail stations, through to national systems. For example, systems in Sweden and the UK integrate sampling and analysis of all refinery or imported batches into the requirements for distribution of fuels within the country. There is also random sampling across the distribution chain throughout the year. The systems active in several Member States were originally designed for other purposes, and this explains some of the variations in coverage and application across the EU. A greater degree of homogeneity was expected from 2004, when the amended Directive requires Member States to: "*establish a fuel quality monitoring system in accordance with the requirements of the relevant European Standard*" (EN 14274 & EN 14275⁹) from 1 January 2004. Since 2001 a significant number of changes have been made to Monitoring Systems. From the EU-15 Member States, 6 have now moved their systems to ones based upon EN 14274 as have 6 of the EU-10 Member States. Portugal has stated it is still in the process of changing its system to comply with EN 14274. Alternative monitoring systems may be permitted by the Directive, provided such systems ensure results of an equivalent confidence. So far only Cyprus, Denmark and Malta have provided information justifying their use of National Systems with reduced sampling. The UK has also provided information on the statistical confidence of its system. Figure 2 summarises the sampling rate across the EU in 2006.

4. 2006 REPORTING

4.1 Fuel Qualities and Volumes

All petrol and diesel sales in the EU are now of fuel with <50 ppm and <10 ppm sulphur. Of all petrol sold, 58% was low sulphur (<50 ppm) and 42% sulphur free (<10 ppm). Of all diesel sold the equivalent split was 69% and 31%.

Similarly to 2001-2005 (for submissions received), the largest total sales of fuels in 2006 were made in France, Germany, Italy, Spain and the United Kingdom (Figure 3). Diesel sales are dominant in many Member States; however the relative proportions of petrol and diesel vary.

Sales in EU-10 Member States comprised 10.1% and 9.9% of total petrol and diesel sales in the EU respectively (down slightly since 2005). Significantly higher proportions of sulphur-free petrol and diesel grades were sold in the EU-10 (49% and 58% respectively), compared to the EU-15 (41% and 29% respectively).

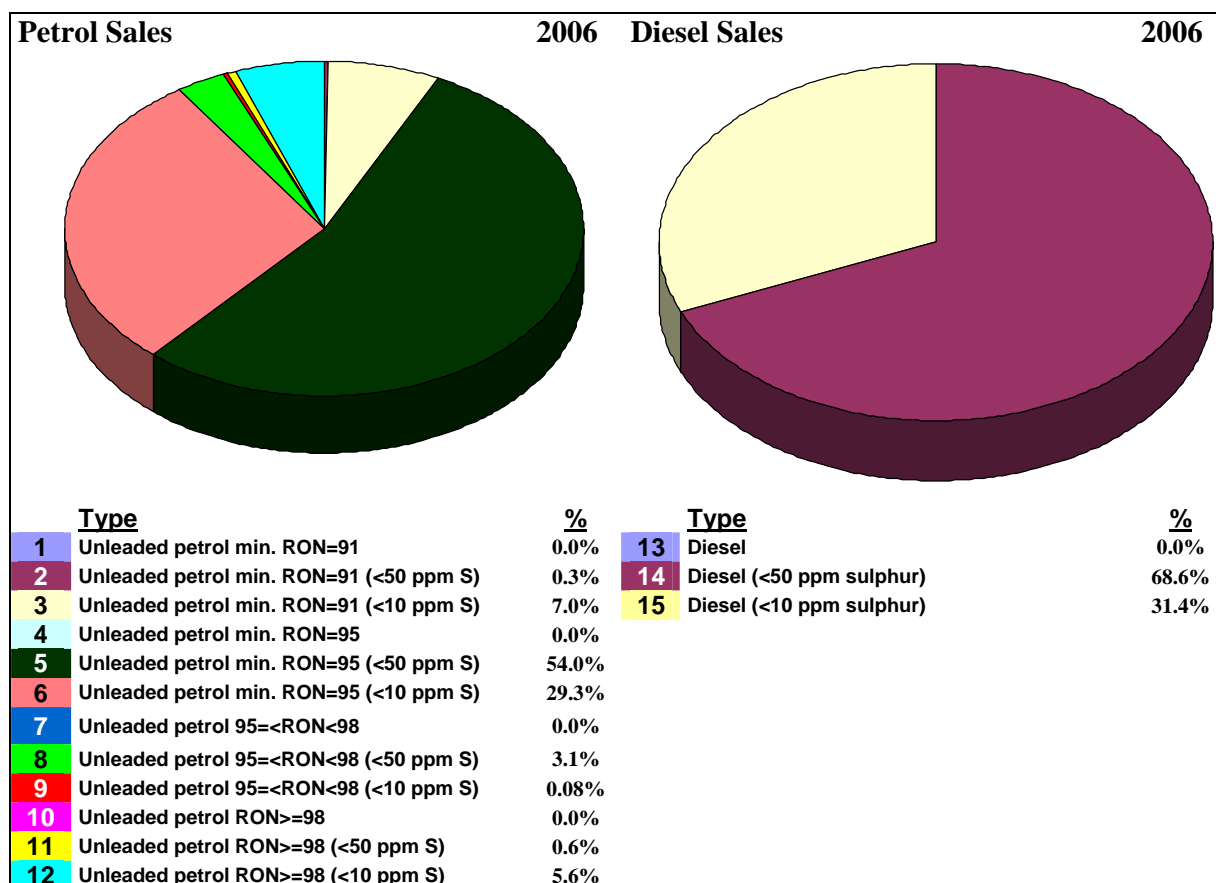
While a wide variety of octane and sulphur grade petrols were available across the EU in 2006, the majority of sales comprised RON95 (83% of the total, 54% being low sulphur and 29% sulphur free¹⁰), see Figure 1 and table in the Annex for full details by Member State.

⁸ http://ec.europa.eu/environment/air/transport/fuel_quality_monitoring.htm

⁹ EN 14275:2003 - Automotive fuels - Assessment of petrol and diesel fuel quality -Sampling from retail site station pumps and commercial site fuel dispensers.

¹⁰ The term "low sulphur" corresponds to a sulphur content of <50 ppm; the term "sulphur free" or "zero sulphur" to a sulphur content of <10 ppm

Figure 1: 2006 EU Fuel sales proportions by fuel type (%)



Since 2001 there has been increased homogeneity in the number of grades of fuel reported to be available across the EU (Figure 4). In 2006 there are generally 2-3 petrol grades available, mainly a result of different octane levels (RON category), however separate sulphur-free grades are appearing in some cases (for example Estonia, which has a sulphur-free version of each fuel type). Separate (marked) national sulphur-free (<10 ppm) fuel grades were available in 10 EU15 (only 1 in 2001) and 4 EU10 Member States in 2006 (in others fuel meeting the sulphur limit is available but unmarked at sale), as in 2005.

Figure 2: Fuel Quality Monitoring sampling rate across the EU in 2006 (average number of samples per fuel grade)

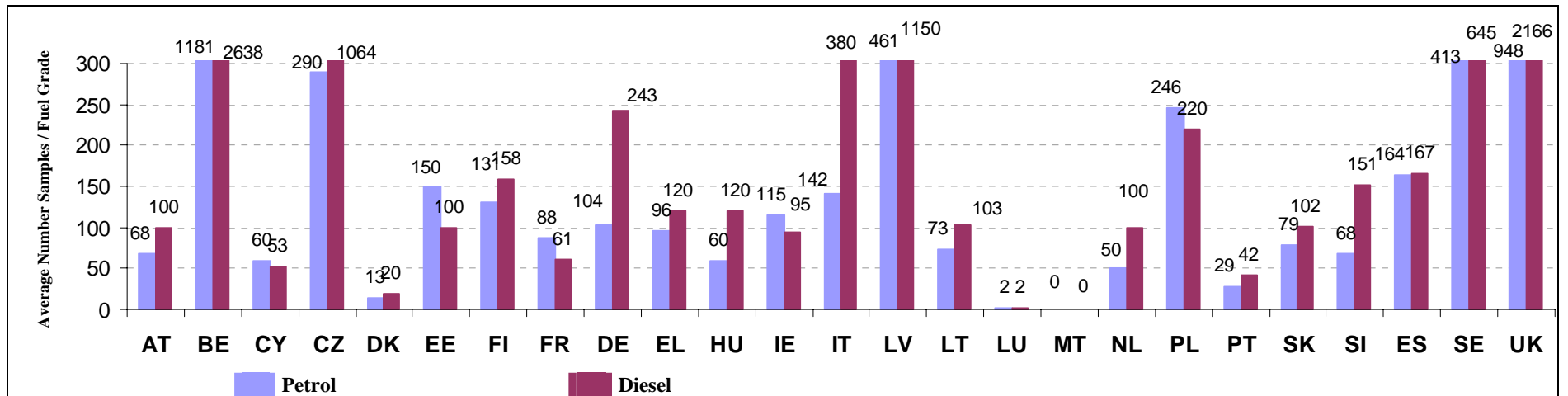
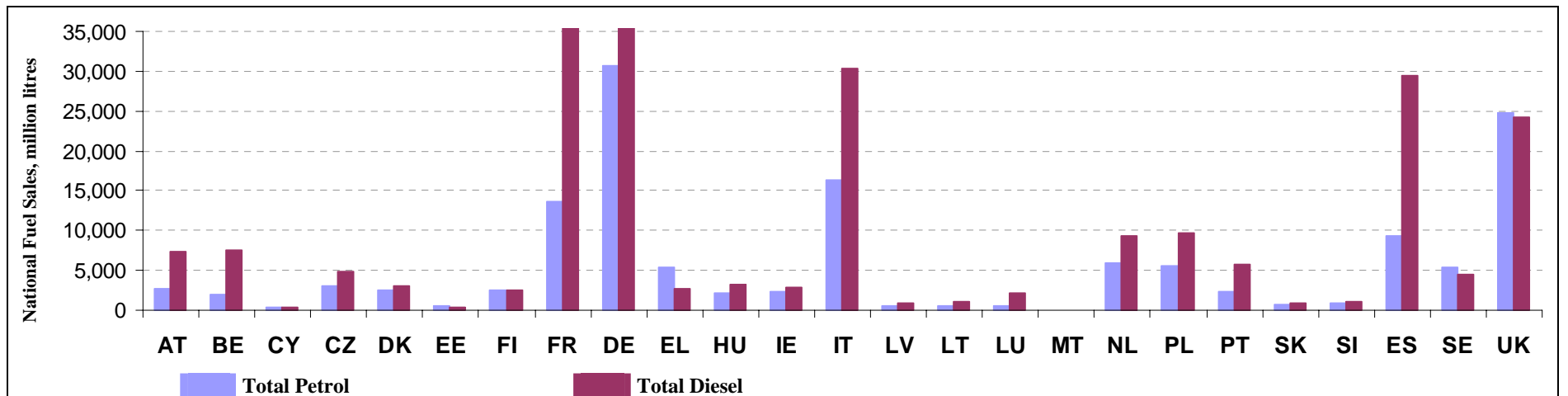


Figure 3: National fuel sales in 2006 by fuel type across the EU (million litres)*



* Excludes Malta who failed to submit a report in 2006

Figure 4: Number of fuel grades available nationally by fuel type across the EU in 2006

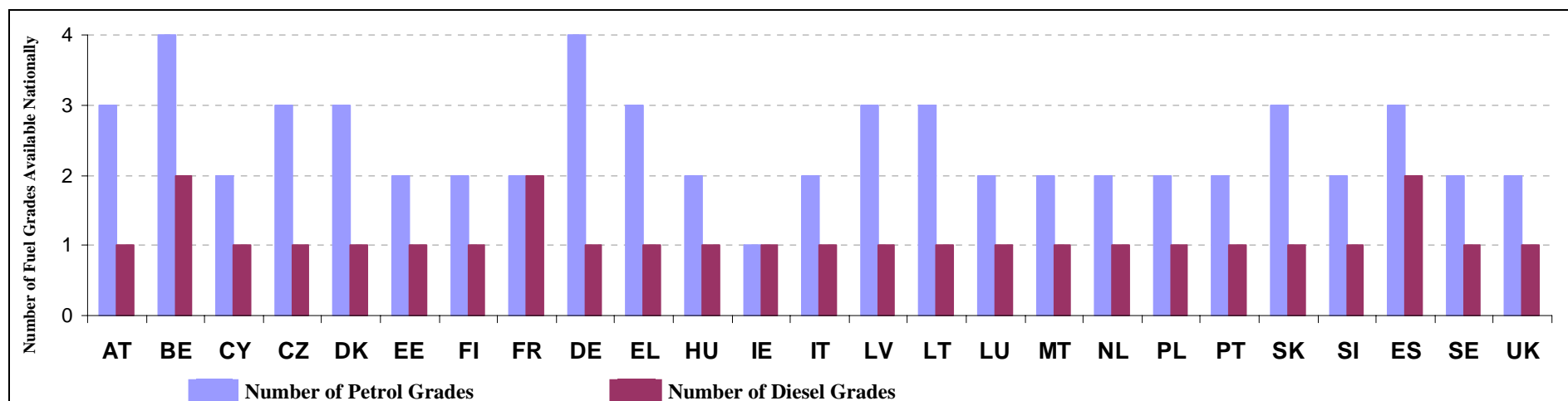


Figure 5: National sales of low sulphur petrol grades across the EU (%) in 2006

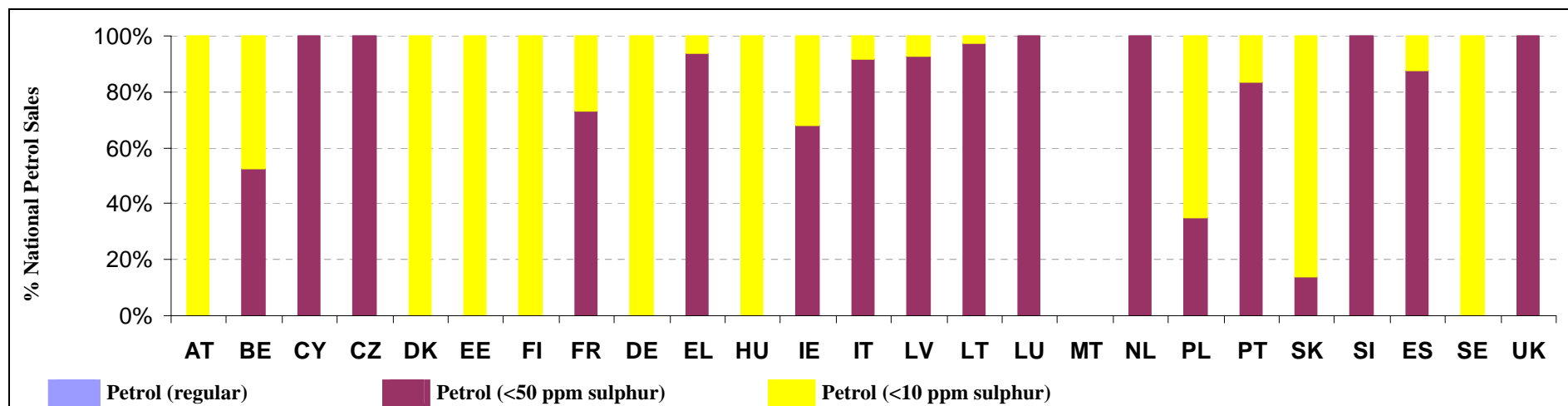


Figure 6: National sales of low sulphur diesel grades across the EU (%)

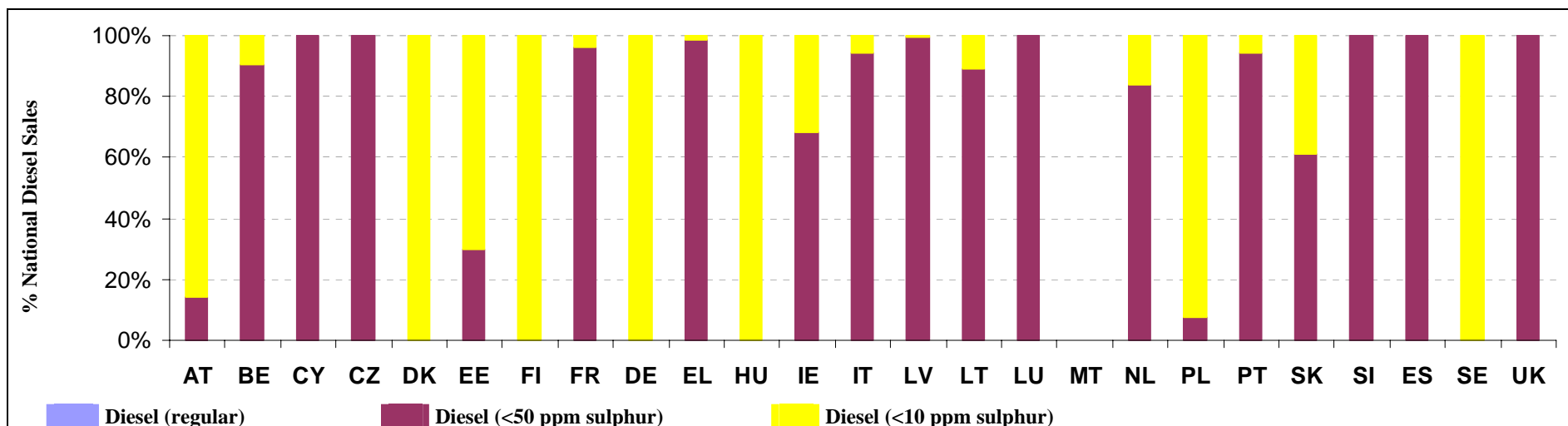
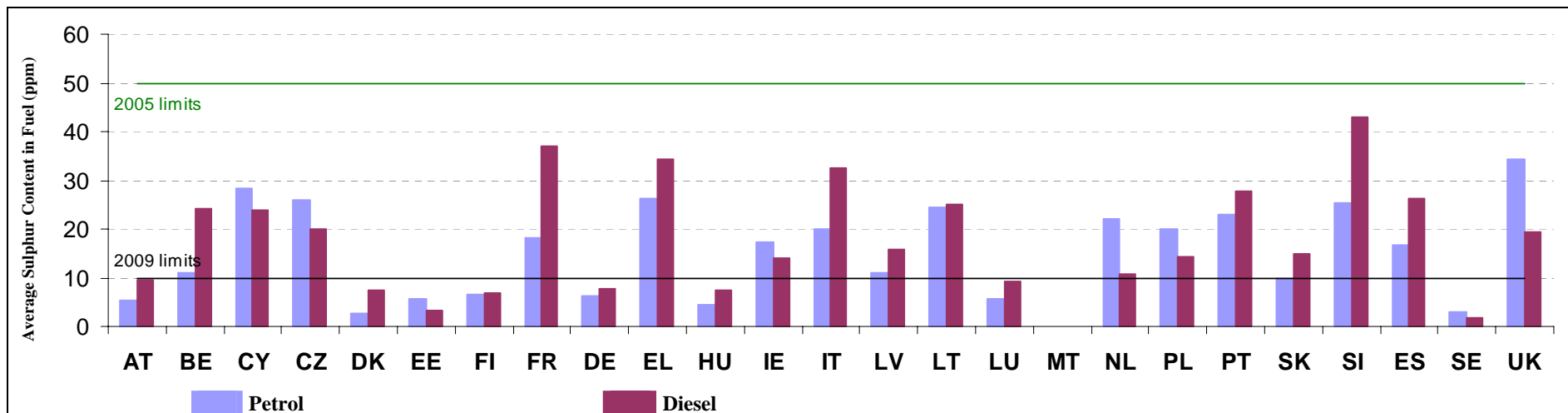


Figure 7: Average sulphur content of petrol and diesel grades across the EU (%)



Notes: Excludes Malta who failed to submit a report in 2006

Low sulphur fuels were available during 2001-2004 in many EU Member States, although mandatory introduction was not required until 2005 (see Figure 5 and Figure 6). Low sulphur (<50 ppm) grades are mandatory from 1 January 2005, as was the introduction of sulphur-free (<10 ppm) fuels. However several Member States are yet to introduce separately marketed (and labelled) sulphur free fuels. Some have not provided sufficient information to judge whether they are available “*on an appropriately balanced geographical basis*”, as required by the Directive, and Cyprus, Malta and the UK have not yet made them available at all.

Member States do not have to fully switch to sulphur-free fuels until 2009. However, for petrol fuels in the EU-15, five Member States (Austria, Denmark, Finland, Germany and Sweden) had already fully moved over to sulphur free petrol grades and similarly (except Austria) for sulphur-free diesel grades in 2006. In Sweden virtually all diesel has been sulphur-free since 1999, and in Germany it has been available from 2003. Two of the EU-10 had fully switched to sulphur-free fuel grades – Hungary for both petrol and diesel, and Estonia for petrol only.

In addition, in Luxembourg, Slovakia and Slovenia where low sulphur fuel grades (< 50 ppm) are marketed, the average sulphur content of some or all of these grades was found to be below 10 ppm. Thus in these countries it appears that fuel sales may be sulphur free, although this is not certain or guaranteed because the fuel grades allow for a sulphur content of up to 50 ppm.

While separate (or labelled) sulphur-free fuel grades, or separate sales figures were not available in 2006 in some Member States, fuels complying with the <10ppm sulphur criterion were available in many cases, e.g. Belgium, Ireland and the Netherlands. This can be seen in Figure 7, which presents the average sulphur content of petrol and diesel grades by Member State across the EU. (Average sulphur content is calculated from the mean sulphur content from reporting on the sampled fuels, weighted to the quantities of different petrol or diesel fuel grades sold). The earlier Table 1 demonstrated that the annual average sulphur content of petrol and diesel fuels sold in the EU is decreasing, and together with Figure 7 shows that much of the fuel sold in previous years already complied with the 2005 sulphur limit (<50 ppm sulphur) for petrol and diesel.

4.2 Compliance with Directive 98/70/EC in 2006

Table 2 summarises the compliance of Member States with Directive 98/70/EC for the year 2006 reporting in terms of the results of the analysis of samples against limit values and the reporting format and content. As for 2001 to 2005, the quality of the compliance assessment suffers in a few cases from incomplete information provided by Member States. Details of action taken with regard to limit value non-compliance by Member States are included where provided in the individual country chapters of the detailed report for the year 2006.

It can be seen that 8 Member States are in complete compliance with Directive 98/70/EC limit values for both petrol and diesel for all samples (compared to 5 in 2001 for the EU-15 and 6 in 2005 for EU-25). With the exception of oxygenates (for 2 Member States, see notes 4 and 5 of the table), 19 Member States also provided complete reporting across the range of parameters specified for monitoring in the Directive.

In 2006, 16 Member States (8 EU-15) reported at least one petrol sample that was non-compliant, this is in comparison to 17 Member States in 2005 (8 EU-15). For the EU15, in 2001, 10 Member States reported at least one non-compliant sample. Of these, the main parameters of concern were again research/motor octane number (25 samples), summer vapour pressure (38 samples) and distillation - evaporation at 100/150°C (4 samples).

For diesel, 10 Member States (3 EU-15) reported at least one sample that was non-compliant. This is compared to 4 in 2001 and 10 EU Member States in 2004 (4 EU-15). Of these, the parameters of concern were sulphur content (21 samples), distillation 95% point (8 samples), cetane number (5 samples) and density (5 samples).

Although several Member States reported non-compliant samples, far fewer samples exceeded the limit values (and the limits of tolerance for the test methods) compared to previous years. Several of the new EU10 Member States reported significant numbers of samples non-compliant with limit values in previous years, but these occurrences have been significantly reduced in 2006. Belgium reported a higher proportion of non-compliant samples than other Member States in 2005, with improved compliance levels on previous years, however insufficient detail has been provided in 2006 to gauge actual non-compliance numbers. Sulphur content proved a particular problem for previous years (mainly EU-10), due to the mandatory <50 ppm level from the start of 2005. This problem appears to have been resolved in 2006.

Table 2: Summary of Member State compliance with 98/70/EC for 2006 reporting.

Member State	Limit value non-compliance ⁽¹⁾ (95% confidence limits) [Non-compliant samples / Total samples]		Incomplete reporting [Number of parameters not measured / Total]		Late report (Due by 30/6/2007) ⁽²⁾	Notes
	Petrol	Diesel	Petrol	Diesel		
	Austria	2 / 203				
Belgium	>7 / 4722	>5 / 5276	8 / 18		<7 months	
Cyprus			7 / 18			(3)
Czech Republic	16 / 871	18 / 1064				
Denmark	2 / 40					
Estonia	11 / 300	1 / 100			<5 months	(4)
Finland	1 / 262	2 / 158				
France	3 / 175	1 / 122			<1 month	(5)
Germany	8 / 414				<7 months	
Greece			6 / 18		<8 months	(6)
Hungary	6 / 120					
Ireland	8 / 115				<1 month	
Italy	4 / 283		1 / 18			(7)
Latvia	3 / 1382	3 / 1150			<1 month	
Lithuania	1 / 218	1 / 103				(8)
Luxembourg			7 / 18		<7 months	
Malta					Not received	
Netherlands						
Poland	9 / 492	3 / 220				
Portugal			7 / 18		<2 months	
Slovakia	16 / 237	2 / 102				
Slovenia	8 / 136	5 / 151	1 / 18		<1 month	(9)
Spain						
Sweden			6 / 18			(10)
UK					<4 months	
No. Countries	16	10	8	0	13	

Notes:

- (1) It is not possible to confirm whether limit values have been respected in all samples, where reporting data is incomplete. Where it has not been possible to establish from submissions the number of samples exceeding the limit value a '>' symbol indicates that the number of samples exceeding limits is a minimum and might be greater.
- (2) Directive 98/70/EC states that Member States should submit monitoring reports by no later than 30th June each year.
- (3) MON and oxygenates (other than ethers with more than 5 carbon atoms per molecule) were not reported.
- (4) DVPE samples number for Grade 12 not reported.
- (5) A partially complete report was submitted in July 2007, however complete details were not provided until January 2008.
- (6) Oxygenates (other than ethers with more than 5 carbon atoms per molecule) have not been reported. In principle, all substances on the list are measured at once using the oxygenate test methods. In this case the system has to be calibrated using a calibration sample, containing the same oxygenates in similar proportions as present in the sample under test. It is not clear in most cases, whether this has been carried out (Portugal have stated no other oxygenates are added). Total organically bound oxygen is calculated from the % by mass of the components after identification.
- (7) Test method EN 1601 was employed for the determination of oxygenate content in petrol samples. EN 1601 requires the examination of each sample chromatogram to identify possible oxygen containing components, before the actual determination is carried out. The examination of all chromatograms related to FQMS samples showed that only one oxygenate compound was present in each sample (MTBE, ETBE, TAME). No other oxygenate compound was detected beside one of these ethers. Analysis for lead was also not provided for <10ppm petrol fuel.
- (8) The full details on numbers of non-compliant samples were not provided.
- (9) No vapour pressure results were provided for RON 98.
- (10) For RON95 petrol: Oxygen content and 5/7 oxygenates have not been reported (Sweden's note: Ethanol is added at the gantry but also at refineries. Therefore the DVPE is a mix of both with and without ethanol. The addition of Ethanol of up to 5% increases the DVPE with about 7 kPa. The oxygen content is not available in the finished fuel). For RON98 petrol: 6/7 oxygenates (i.e. other than ethers with more than 5 carbon atoms per molecule) have not been reported.

5. CONCLUSIONS

Fuel quality is environmentally important because it affects engine pollutant emissions and thus air quality as well as the ease and cost with which desired pollutant and greenhouse gas emission limits can be achieved by manufacturers. The monitoring of fuel quality in 2006 shows that the specifications for petrol and diesel laid down in Directive 98/70/EC are in general met and very few exceedances were identified. The Commission is not aware of any negative repercussions on vehicle emissions or engine functioning due to these exceedances. The Commission remains concerned about the exceedances and will continue monitoring compliance with the fuel quality requirements laid down in the Directive. The Commission will continue exploring the use of more detailed statistical analysis of reported data.

The share of <10 and <50 ppm fuels have been increasing from 2001 to 2005. For 2006 the proportions have increased significantly, with the <50 ppm sulphur limit becoming mandatory, and the requirement for introduction of <10 ppm sulphur fuels across the EU. Zero sulphur fuels were available in the majority of Member States in 2006 (UK, Malta and Cyprus still need to introduce these fuels). However, from current indications there are still cases where the grades do not appear to be labelled in certain Member States.

This lack of labelling could hamper the introduction of vehicles using technology requiring sulphur-free fuels before full mandatory introduction in 2009 since without labelling consumers have no possibility to choose these fuels. This is particularly important for owners of vehicles utilising technology that requires sulphur-free fuel and significantly undermines the value of having fuels meeting this criterion available. As a result the full potential offered for reductions in CO₂ from the road transport sector would not be realised. Belgium, Czech Republic, Ireland, Latvia, Luxemburg, Slovakia and Slovenia are countries where action could be taken to ensure zero sulphur fuels are labelled in future years. Reporting on this labelling could help the automotive industry gain confidence in fuel availability so that vehicles taking full advantage of the zero sulphur content are more widely introduced leading to an environmental gain through lower pollutant and greenhouse gas emissions. In general very limited information has been provided by Member States on the geographical availability of zero sulphur fuels. Most Member States simply stating they were widely available, but provided no supplementary information to provide a measure of the geographical availability.

The fuel quality monitoring systems established at national level differ considerably and require further harmonisation in order to provide transparent and comparable results. The implementation of Directive 2003/17/EC has led to improved quality of reporting as it requires Member States to report on monitoring in accordance to the new European Standard, EN 14274, or with systems of equivalent confidence. Where Member States do not report according to EN 14274 format, justification for this must be provided.

ANNEX:2006 EU fuel sales by fuel type (million litres)

ID No.	Million litres Fuel grade	Austria AU	Belgium BE	Denmark DK	Finland FI	France FR	Germany DE	Greece EL	Ireland IE	Italy IT	Luxembourg LU	Netherlands NL	Portugal PT	Spain ES	Sweden SE	UK UK	EU15 EU15	EU15 % Total
1	Unleaded petrol min. RON=91	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
2	Unleaded petrol min. RON=91 (<50 ppm S)	-	-	-	-	-	-	-	-	-	0	-	-	-	-	-	0	0.0%
3	Unleaded petrol min. RON=91 (<10 ppm S)	694	-	513	-	-	8,504	-	-	-	-	-	-	-	-	-	9,711	7.7%
4	Unleaded petrol min. RON=95	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
5	Unleaded petrol min. RON=95 (<50 ppm S)	-	793	-	-	10,040	-	4,500	1,599	15,025	494	5,647	-	8,196	-	23,658	69,951	55.4%
6	Unleaded petrol min. RON=95 (<10 ppm S)	1,927	684	1,920	2,261	-	21,232	-	750	1,313	-	-	-	-	4,994	-	35,082	27.8%
7	Unleaded petrol 95=<RON<98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
8	Unleaded petrol 95=<RON<98 (<50 ppm S)	-	-	-	-	-	-	581	-	-	-	1	1,891	16	-	1,066	3,555	2.8%
9	Unleaded petrol 95=<RON<98 (<10 ppm S)	-	-	-	-	109	-	-	-	-	-	-	-	-	-	-	109	0.1%
10	Unleaded petrol RON>=98	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
11	Unleaded petrol RON>=98 (<50 ppm S)	-	253	-	-	-	-	34	-	-	116	217	-	-	-	-	619	0.5%
12	Unleaded petrol RON>=98 (<10 ppm S)	76	253	13	221	3,529	870	343	-	-	-	-	375	1,173	354	-	7,207	5.7%
	Petrol (regular)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.0%
	Petrol (<50 ppm sulphur)	0	1,046	0	0	10,040	0	5,114	1,599	15,025	610	5,864	1,891	8,212	0	24,724	74,126	58.7%
	Petrol (<10 ppm sulphur)	2,697	937	2,446	2,483	3,638	30,605	343	750	1,313	0	0	375	1,173	5,348	0	52,110	41.3%
	Total Petrol	2,697	1,984	2,446	2,483	13,678	30,605	5,458	2,349	16,339	610	5,864	2,266	9,385	5,348	24,724	126,235	100.0%
13	Diesel	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	0	0.0%
14	Diesel (<50 ppm sulphur)	1,031	6,865	-	-	36,230	-	2,574	1,979	28,739	2,111	7,851	5,377	29,350	-	24,286	146,394	71.4%
15	Diesel (<10 ppm sulphur)	6,331	706	3,071	2,459	1,510	35,616	42	920	1,670	-	1,493	316	0	4,422	-	58,557	28.6%
	Total Diesel	7,362	7,572	3,071	2,459	37,740	35,616	2,616	2,899	30,409	2,111	9,345	5,693	29,350	4,422	24,286	204,950	100.0%

ID No.	Million litres Fuel grade	Cyprus CY	Czech Republic CZ	Estonia EE	Hungary HU	Latvia LV	Lithuania LT	Malta MT	Poland PL	Slovakia SK	Slovenia SI	EU10 EU10	EU10 % Total
1	Unleaded petrol min. RON=91	-	-	-	-	-	-	-	-	-	-	0	0.0%
2	Unleaded petrol min. RON=91 (<50 ppm S)	-	258	-	-	15	94	-	-	14	-	380	2.7%
3	Unleaded petrol min. RON=91 (<10 ppm S)	-	-	36	-	-	-	-	-	69	-	105	0.7%
4	Unleaded petrol min. RON=95	-	-	-	-	-	-	-	-	-	-	0	0.0%
5	Unleaded petrol min. RON=95 (<50 ppm S)	388	2,715	-	-	404	386	-	1,967	97	-	5,958	41.8%
6	Unleaded petrol min. RON=95 (<10 ppm S)	-	-	381	1,969	1	4	-	3,188	602	-	6,145	43.1%
7	Unleaded petrol 95=<RON<98	-	-	-	-	-	-	-	-	-	-	0	0.0%
8	Unleaded petrol 95=<RON<98 (<50 ppm S)	-	-	-	-	-	-	-	-	-	785	785	5.5%
9	Unleaded petrol 95=<RON<98 (<10 ppm S)	-	-	-	-	-	-	-	-	-	-	0	0.0%
10	Unleaded petrol RON>=98	-	-	-	-	-	-	-	-	-	-	0	0.0%
11	Unleaded petrol RON>=98 (<50 ppm S)	46	30	-	-	10	-	-	-	1	77	165	1.2%
12	Unleaded petrol RON>=98 (<10 ppm S)	-	-	48	175	34	10	-	440	16	-	722	5.1%
	Petrol (regular)	0	0	0	0	0	0	-	0	0	0	0	0.0%
	Petrol (<50 ppm sulphur)	434	3,003	0	0	430	479	-	1,967	113	862	7,289	51.1%
	Petrol (<10 ppm sulphur)	0	0	464	2,143	35	14	-	3,627	687	0	6,971	48.9%
	Total Petrol	434	3,003	464	2,143	464	493	-	5,595	800	862	14,259	100.0%
13	Diesel	-	-	-	-	-	-	-	-	-	-	0	0.0%
14	Diesel (<50 ppm sulphur)	398	4,909	129	-	792	913	-	755	511	1,149	9,556	42.4%
15	Diesel (<10 ppm sulphur)	-	-	300	3,236	3	113	-	9,000	327	-	12,979	57.6%
	Total Diesel	398	4,909	429	3,236	795	1,026	-	9,755	838	1,149	22,535	100.0%

European Union EU	European Union % Total
0	0.0%
380	0.3%
9,816	7.0%
0	0.0%
75,909	54.0%
41,227	29.3%
0	0.0%
4,340	3.1%
109	0.1%
0	0.0%
785	0.6%
7,928	5.6%
0	0.0%
81,414	57.9%
59,080	42.1%
140,495	100.0%
0	0.0%
155,949	68.6%
71,536	31.4%
227,485	100.0%

