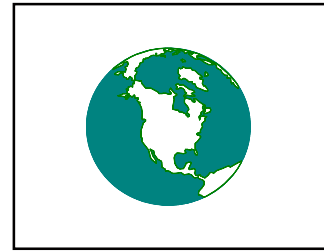


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CAR LINES

Issue 2005 - 4

August 2005



The 2005 Ricardo diesel report

PROJECTED US LIGHT DUTY DIESEL SALES
(vehicles < 8,500 lb GVW)

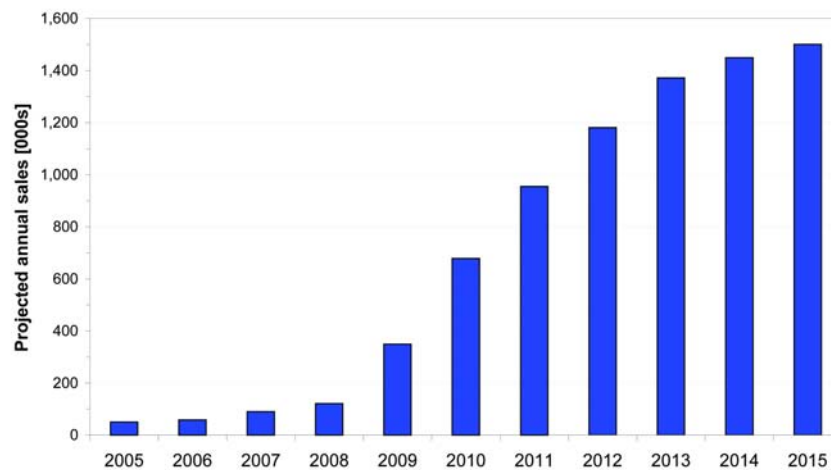


Table of Contents

1.	EU Seeks Euro 5 Comments, Wants SUV Loophole Closed	4
2.	EU Commission Agrees to Move Forward On 'Thematic Strategies'	6
3.	EU Environment Agency Finds Renewed Rise in Carbon Emissions	7
4.	Switzerland Moves to Set Up Carbon Tax	8
5.	Italian Official Says Reject Emissions Targets After First Kyoto Period	9
6.	French Study Highlights Pollution From Two-Wheelers.....	9
7.	Polish Power Plant Gets [Euros] 220 Million Loan for Emissions Controls	9
8.	French Plan Aims to Expand Market For CNG Vehicles	10
9.	U.K. Environment Department Annual Report Stresses Climate.....	11
10.	Draft EU Paper Suggests Including Airlines in Emissions Trading.....	11
11.	British Aviation Industry Voluntary Initiative Aims to Cut Emissions.....	12
12.	Record Temperature Sends Levels Of Air Pollution In Athens Soaring	13
13.	Fuel Shortage Could Mean Rocky Road For Diesel	13
14.	T&E Charges Commission's Vehicle Emissions Target Too Weak	14
15.	European Commission Proposes CO2-Based Car Taxation	14
16.	Italy's State of the Environment Report Sees Worse Emissions	15
17.	BMW Introduces New Models, All Diesels Will Come With Filters	16
18.	First Chinese Cars Arrive For Sale In W. Europe.....	17
19.	WWF Report Sees Rising Temperatures in Europe.....	17
20.	Over 600 SMS Alerts On Vehicle Exhaust in Malta.....	17
21.	US Energy Bill Signed Into Law	19
22.	EPA Adopts Stationary Diesel Engine Regulations	22
23.	US Joins International Motorcycle Testing Effort.....	22
24.	EPA Diesel Program Falling Short Of Emissions Targets	23
25.	Draft EPA Risk Assessment Labels MTBE As 'Likely' Human Carcinogen	23
26.	Greens and EPA Reach Agreement on Vehicle Air Toxics Emissions.....	24
27.	DOE Moves Toward Flexible Fuel Vehicles As It Phases Out CNG Use	25
28.	Appeals Court Rules EPA Doesn't Have To Regulate CO2 Emissions	26
29.	Canadian Aviation Sector to Cut Emissions Voluntarily	27
30.	Final EPA Staff Paper Recommends Stronger PM Standards	29
31.	Ontario Report Cites Cross-Border Air Pollution Issues.....	31
32.	Report Recommends Improving Emissions Inventories in North America	32
33.	EPA Releases 2005 Fuel Economy Trends Report.....	33
34.	NAFTA Environment Ministers Adopt Wide-Ranging Five-Year Plan	34
35.	Ontario Delays Phase-out of Coal-Fired Power Plants	35
36.	Canada Environmental Officials Reach Draft Mercury Agreement.....	36
37.	Mexico Preparing Emissions Limits, Proposes Fuel-Sulfur Standards	37
38.	Ricardo Report Predicts Vastly Expanded US Light Duty Diesel Market.....	39
39.	Another Study Says US Diesel Demand to Reach \$16.3 Billion in 2009	40
40.	Emissions From U.S. Cars Jump 25 Percent In 13 Years, ED Reports	40
41.	US Proposes to Boost Light-Truck Fuel Economy; Attacks CARB Rule	41
42.	Western States On Verge of Adopting California Greenhouse Standards	43
43.	Vehicles Identified As Major Source of Toxic Metals in Puget Sound	44
44.	International Tribunal Upholds States' Right To Ban MTBE	44
45.	California Adopts OBD Requirements For Heavy-Duty Engines	45
46.	Nine States Planning to Cut Power Plant Greenhouse Gas Emissions	46
47.	Singapore Adopts Ultra Low Sulphur Diesel	47
48.	China, Hong Kong to Cooperate on Air Pollution.....	48
49.	New Zealand's Greenhouse Gas Projections Increase	49
50.	New Zealand Officials to Review Greenhouse Gas Policies	50

51.	World Bank Announces Loan To Support Renewable Energy in China	51
52.	Asia Scrambling to Curb Energy Use	52
53.	Alarm Over Smokey Cars in Auckland	53
54.	Vietnam to Introduce Tough Standards For Vehicles Emissions & Fuels	54
55.	Japan Mulling Tougher Auto Efficiency Standards.....	54
56.	China Will Implement Low Sulfur Fuel Strategies	55
57.	Guangzhou To Accelerate Clean Vehicles and Fuels	56
58.	Most Beijing Buses To Use Clean Fuel In 2008	56
59.	Exxon Mobil CEO sees potential in China.....	57
60.	Beijing Has More Days Of “Blue Sky”	57
61.	China’s President Calls For International Cooperation In Climate Change.....	58
62.	Compulsory Limits Set On Car Fuel Use in China.....	60
63.	China Car Sales Accelerate, Market Shift To Cheaper Vehicles	61
64.	China Cuts Diesel, Gasoline Exports.....	63
65.	Toyota’s China Partner Profits and Earnings Rise.....	63
66.	WHO say Dirty Air A Regular Killer In Asia, ASEAN Officials Fight Haze.....	64
67.	Malaysia Lists Vehicles Found Violating Standards	66
68.	Vehicle Emission Health Hazard Hurts Sri Lanka’s Economy	66
69.	India Seeks Reduced Congestion Under Draft Urban Transport Strategy.....	68
70.	Toyota, TERI To Study Air Quality In Bangalore.....	69
71.	China Workshop Focuses On In Use Vehicles	70
72.	Older Car Imports Facing Ban in New Zealand.....	71
73.	Peru Passes New General Environment Law But President Vetoes It	72
74.	Peru Cracks Down on 'Dirty' Diesel Fuel, Reduces Sulfur Content.....	74
75.	Peru Converts Locomotives to Natural Gas.....	74
76.	Venezuela’s First Climate 'Communication' Highlights Obstacles.....	75
77.	Venezuela Oil Monopoly Reportedly to Discontinue Leaded Fuels.....	76
78.	Petrobras Investing To Improve Fuel Quality	76
79.	South Africa to Target Top 50 Air Polluters	77
80.	KwaZulu-Natal to Monitor Air Quality in Five Hotspots	78
81.	Report Warns Africa Faces Disaster Without More Help.....	79
82.	South African Government Announces Steep Petrol Price Hike	80
83.	Israel’s Knesset Gives Preliminary Approval To New Clean Air Act	80
84.	Shifting Gears in Egypt	81
85.	Participants at IEA Seminar Predict Growth In Ethanol Use	83
86.	G-8 Agree to Stabilize Greenhouse Emissions But No Specifics	85
87.	U.S. Gets More Asian Air Pollution Than Thought	86
88.	Six-Nation Climate Pact Announced.....	87
89.	Air Pollution Causes Coronary Heart Disease In Women.....	89
90.	Childhood Cancers Strongly Linked To Air Pollution In Early Life	90
91.	New ICF Report Says Refining Limits Are Crimping Fuel Supply	91
92.	Toyota Pushes Industry To Embrace Fuel Economy, GHG Controls.....	92

EUROPE

1. EU Seeks Euro 5 Comments, Wants SUV Loophole Closed

In early 2004, anticipating the entry into force of Euro 4 emission standards for light duty vehicles in 2005, the Commission sent out a questionnaire to stakeholders on new Euro 5 emission limits for light duty vehicles. The questionnaire developed a number of scenarios for new limit values and sought data on the technology that would be required to meet those values and the associated costs. This information was collated and was used in modeling of the environmental and economic impacts of a number of the emission limit scenarios. This process has also been supported by discussions on specific issues with a number of key stakeholders.

In January 2005, the Commission published a Staff Working Paper on 'Fiscal Incentives for Motor Vehicles in Advance of Euro 5. This paper suggested that in setting tax incentives for the introduction of diesel vehicles with diesel particulate filters onto the market, that Member States should consider using an emission limit of 5 mg/km as the basis for incentives. It also suggested that in the short term limit values would be proposed for NOx emissions from diesel passenger cars and small light duty diesel vehicles that would not require NOx aftertreatment systems to be fitted. The paper highlighted that this guidance did not prejudice the limit values that the Commission will propose in its formal Euro 5 proposal.

The Commission services have now produced a preliminary draft proposal for Euro 5 and have posted it on the internet for consultation and comment. This consultation seeks to gather the views of all interested parties on the draft. It is of particular interest to this exercise to get feedback on the proposal in terms of feasibility, cost, and environmental impact.

The draft provides for a number of requirements:

- An 80% reduction in particulate matter (PM) emissions from diesel cars (less than the 90% reduction requested by Germany).
- A 20% reduction in nitrogen oxides (NOx) emissions from diesel cars (selected so as not to require NOx aftertreatment for light duty vehicles and still leaving the inequity with gasoline fueled vehicles).
- Further reductions in emissions of NOx and hydrocarbons (HC) from gasoline cars.
- Introduction of a particulate emission limit for lean burn direct injection petrol cars.
- Intention to introduce a particulate number standard. (Although the durability testing requirement would be increased to 160,000 km, the in-use compliance period would remain at 5 years of 100,000 km.
- Removal of an exemption that enabled passenger vehicles with a mass of over 2500 kg to be type approved using emission standards of light commercial vehicles.
- Introducing an implementation date of 18 months after the entry into force of the regulation for new type approvals and 36 months for all types

The proposals have been published on the internet for public debate and the commission plans to table final proposals in December. The proposed new standards are summarized below. (CO limits are not shown since no changes from existing limits were proposed.)

Category	Class	Reference Mass (Kg)	HC		NOx		Limit Values HC+NOx		PM (1)		Number of PM (2)	
			(mg/km)		(mg/km)		(mg/km)		(mg/km)		(#/km)	
			Petrol	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol	Diesel	Petrol	Diesel
M	-	All	75	-	60	200	-	250	5.0	5.0		
N	I	RM<1305	75	-	60	200	-	250	5.0	5.0		
	II	1305<RM 1760	100	-	75	260	-	320	8.0	8.0		
	III	1760<RM	120	-	82	310	-	380	12	12		

- (1) PM limit values relate to the existing measurement procedure. A revised measurement procedure shall be adopted once the work of the UN/ECE PMP program is complete and the limit values will be adjusted accordingly to reflect the differences in the measurement techniques.
- (2) After the completion of the UN/ECE PMP Program, a PM number standard may be introduced. The standards would be set so that they broadly correlate with the petrol and diesel mass standards. In the absence of a number standard, manufacturers should collect the PM number data and make these available at type approval.
- (3) Petrol particulate mass standards apply only to vehicles which use lean burn direct injection engines.

In proposing the Euro 5 standards the Commission is seeking to replace the existing legislation which dates back to 1970. It is therefore proposing a completely new Regulation that will result in the repeal of Directive 70/220/EEC and all of its amendments. In addition with this draft it has adopted the so-called 'split level approach' where key aspects such as the emission limits are decided through the co-decision procedure by Council and Parliament, whilst technical details will be adopted through the comitology procedure.

Under the current rules many of the heaviest cars are allowed to register as vans, allowing them to produce more pollutants than smaller cars. The proposals will add to the pressure on manufacturers of offroaders, also known as sport utility vehicles (SUVs). Several European governments and local authorities, including London and Paris, have discussed introducing limits on the use of big offroaders. Sales have grown sharply across the continent, although no action has been taken.

The so-called Euro V rules will have the biggest effect on the price of diesel engines which must have filters fitted for the first time. But car industry executives reportedly have taken the position that the 37.5 per cent cut in already low petrol engine emissions was too high, and asked for it to be reassessed. "It would necessitate expensive catalyst upgrades and certainly push up the price for petrol engines," said Wolfgang Schneider, vice-president of government, environmental and legal affairs at Ford of Europe.

The Commission also floated the idea of forcing governments and local authorities to include a minimum percentage of "clean" vehicles in their fleets, in an attempt to boost fuel-efficient car development. Brussels has not yet defined what counts as a low-emission vehicle, but the Commission spokesman hopes the proposal would lead to a binding directive on public procurement. Member states are understood to have expressed opposition to interference from Brussels in their purchasing policies.

2. EU Commission Agrees to Move Forward On 'Thematic Strategies'

At a closely watched meeting on July 20th, the European Commission agreed to move forward with plans to launch a series of initiatives this fall to upgrade specific areas of environmental policy, including air quality, marine pollution, pesticides, and waste. The general agreement came despite strong objections from several of the 25 commissioners who said the initiatives could endanger economic competitiveness. Opposition was focused in particular on a proposed air quality plan that aims to reduce particulate emissions by 80 percent but which is expected to cost [Euros]12 billion (\$14.6 billion) per year. An early draft of the plan would tighten rules on emissions from vehicles, fuel stations, small combustion plants, ships, and airplanes.

Air quality is one of the environmental policy areas covered under seven "thematic strategies" outlined in 2002 as part of the EU's Sixth Environmental Action Plan. The other six are the marine environment, resource use, waste prevention and recycling, pesticides, soil quality, and the urban environment.

Leading opponents of plans for stronger environmental rules were Industry Commissioner Gunter Verheugen and Internal Market Commissioner Charlie McCreevy. Earlier this summer, the Commission acknowledged pressure from opponents by agreeing to hold the July 20 "orientation debate".

Following the outcome of the debate, EU Environment Commissioner Stavros Dimas, who led support for the environmental initiatives, is expected to present a more detailed air quality plan in September. Dimas cited studies which found that stricter air quality rules could prevent 350,000 premature deaths each year in Europe.

According to a policy paper drawn up by Dimas' office for the July 20 meeting, the initiatives are aimed primarily at streamlining EU environmental directives. "The thematic strategies are a response to the continuing imperative to streamline and modernize, moving from a complex array of individual pieces of legislation to policy and legal frameworks that can be adjusted flexibly in response to the changing state of the environment, technological progress, and the geographic diversity of the enlarged EU," the policy paper said.

During the July 20 meeting, Verheugen and other commissioners pointed to the poor implementation record of most EU member states concerning existing EU environmental directives, citing this as another reason to hold off on issuing stricter laws. The Commission has initiated more infringement cases against member states on environmental issues than in any other area, and in June took steps forward on more than 70 such cases against 18 member states.

Backers of stronger environmental rules, which included Competition Commissioner Neelie Kroes, highlighted potential benefits for the environment and public health as well as for business.

Having made economic competitiveness a priority for his five-year term as head of the EU executive body, Commission President Jose Manuel Barroso, along with Industry Commissioner Gunter Verheugen, had forced Environment Commissioner Stavros Dimas to hold off on formally presenting a proposal for the Clean Air for Europe (CAFE) initiative, a Commission official told reporters July 5. The draft was to have been put forward July 20. Instead, the Commission had an "orientation debate" about the policy on that date.

"CAFE" was first outlined in July 2002 as one of seven "thematic strategies" in the EU's Sixth Environment Action Plan. The Commission (the EU executive body) was required to produce a comprehensive plan within three years.

Officials in the Commission's environment directorate said they had a complete, workable plan. They made little effort to hide their anger at the move by Barroso to block implementation. "We have conducted a very comprehensive environmental and economic impact study over three years in advance of proposing this legislation," one Commission official said. "It is clearly a case where the president and those in the industry division do not understand or appreciate the need for this legislation. Not only are their citizens dying because of air pollution, but every opinion poll shows that citizens want the European Union to act in the environment field."

In early June, UNICE, an organization that represents employers' federations in 32 European states, sent a letter to Commission President Barroso asserting that the CAFE draft contained "unrealistic targets." In response, the European Environment Bureau, representing environmental advocates, urged Barroso not to be "intimidated by a stakeholder whose strategy it is constantly to exaggerate perceived negative impacts in order to reduce as much as possible obligations on the business sector."

3. EU Environment Agency Finds Renewed Rise in Carbon Emissions

Greenhouse gas emissions in the European Union increased by 1.5 percent between 2002 and 2003 after declining the previous year, according to a report released June 21 by the EU's European Environment Agency. An unusually cold winter in some member states and an increase in the use of coal for energy generation were the primary cause for the rise, the report said.

Within the 15 original EU members, carbon dioxide emissions, which account for more than 80 percent of overall greenhouse gas emissions, increased by 1.8 percent over the period.

Since 1990, CO₂ emissions in the EU-15 have increased by 3.4 percent while emissions of overall greenhouse gases have decreased by 1.7 percent. The year 1990 is the baseline for the Kyoto Protocol, which calls on the European Union to reduce overall greenhouse gas emissions by 8 percent from 1990 levels by the period 2008-2012.

Nevertheless, European Commissions officials were optimistic about meeting the goal.

"Our projections from December show that we are going to meet our Kyoto targets," Barbara Helfferich, a spokeswoman for the European Commission's environment directorate, told a news conference June 21. "Many of the measures to curb emissions weren't in place in 2003, such as our CO2 emissions trading system that started in January this year."

One day earlier, the Commission approved Greece's plan for joining the emissions trading scheme, which was officially launched in January. Greece was the last of the 25 EU members to have its national allocation plan approved.

Environment Commissioner Stavros Dimas said in a statement June 21 that the rise in emissions underlined the need for stricter measures. "These figures are disappointing and further reinforce the need for member states to fully implement all the emission-reduction actions agreed at EU level as well as their own national measures," Dimas said.

4. Switzerland Moves to Set Up Carbon Tax

On June 22nd, the Swiss government took the first steps to implement a new tax on carbon fuels, a move that followed closely a report that said Switzerland will not meet its obligations for reducing emissions of greenhouse gases. The Swiss Federal Council, the government's executive arm, approved two ordinances setting the amounts of the tax, conditions for claiming an exemption from the tax, and the use of emissions credits for achieving carbon dioxide reduction targets. The Federal Council also sent a message to the Swiss parliament outlining its intentions on the carbon fuels tax.

The Swiss government announced on March 23 that it would impose a levy on carbon fuels such as natural gas, coal, and heating oil to help meet Switzerland's greenhouse gas reduction commitments under the Kyoto Protocol. The levy is due to enter into force by the beginning of 2006.

The levy, set at 35 Swiss francs (US \$27) per metric ton of carbon fuels, will be the equivalent of 9 Swiss centimes (about 7 cents) per liter of heating oil. The government refuses to describe the levy as a tax, instead calling it an "incentive charge."

The government refrained from imposing an immediate obligatory tax on motor vehicle fuels, instead endorsing an industry-backed voluntary scheme called the "climate penny" initiative. Under this initiative, fuel importers would collect a charge on each liter of gasoline sold in Switzerland, with the revenue used to fund the development of cleaner fuels, improve fuel efficiency in buildings and infrastructure, and purchase emissions allowances under the Kyoto carbon trading scheme on the international market to meet Switzerland's reduction commitments.

On June 16, the Swiss Federal Department for Environment, Transportation, Energy, and Communication (DETEC) issued a report warning that Switzerland would miss its Kyoto reduction target by 2.5 million tons of carbon emissions under policies now in effect. Switzerland emitted the equivalent of 52.45 million metric tons of carbon in 1990. Under the Kyoto Protocol, Switzerland agreed to reduce its carbon emission by 8 percent by 2010, bringing it down to 48.25 million tons by that date. According to the

DETEC projection, under policies in place at the end of 2004, emissions will continue falling over the next five years, but only by 3.2 percent, bringing total emissions down to a projected 50.77 million tons by 2010.

DETEC noted that the decision to impose a levy on carbon emissions, as well as other measures in the pipeline, could help Switzerland close the gap, although it did not predict what impact these measures would have.

The revenues raised through the incentive charge will eventually be redistributed back to Swiss residents through the country's national social security system rather than going into government coffers. DETEC said the amount of the reimbursement would average around 46 francs annually per inhabitant.

5. Italian Official Says Reject Emissions Targets After First Kyoto Period

Italy will not agree to binding emissions targets after 2012 and will instead push for U.S.-style "emissions intensity" targets, Environment Ministry Director General Corrado Clini said June 20. Clini, also the ministry's long-time negotiator on climate change policy, said the country will not renew its commitments to fixed emissions reductions targets after the first Kyoto Protocol compliance period ends in 2012.

Italian officials have voiced misgivings about the post-2012 period in the past. In December, Environment Minister Altero Matteoli said Italy would pull out of the protocol after 2012 if big polluters like the United States, India, and China had not signed up for mandatory targets by then. But Clini's comments are the first to categorically state that Italy will not accept binding targets in the Kyoto document's second compliance period.

Emissions intensity measures the amount of energy used to produce one unit of gross domestic product.

6. French Study Highlights Pollution From Two-Wheelers

Two-wheeled vehicles are responsible for more than 10 percent of French urban air pollution, despite accounting for less than 1 percent of fuel use, a government environmental agency reported June 29. The French Agency for the Environment and Energy Management (ADEME) said the imbalance was due to the large number of older mopeds, motorcycles, and scooters that fail to meet current EU emission standards. France's 2.4 million two-wheeled vehicles produce 10 percent of the country's total carbon monoxide emissions and 13 percent of unburned hydrocarbon emissions, two of the major ingredients in urban smog, according to the study. ADEME suggests that the ongoing replacement of older two-wheeled vehicles combined with the planned implementation of tighter standards in 2006 will gradually lower emissions.

7. Polish Power Plant Gets [Euros] 220 Million Loan for Emissions Controls

On June 16th, the European Investment Bank, an EU financing institution, announced it would lend [Euros]220 million (US \$265 million) to finance upgrades at a large coal-fired

power plant near the central Polish town of Belchatow. The BOT Belchatow Power Plant is the largest lignite-fueled facility in Europe and supplies 20 percent of Poland's power. Lignite is a brownish, soft grade of coal.

BOT chief executive Zbigniew Bicki welcomed the loan and said in a statement it would help the plant reduce emissions, including carbon dioxide emissions.

The investment is expected to help the plant comply with the EU Large Combustion Plants Directive (2001/80/EC) five years before Poland's deadline in 2017. Two desulfurization units will be finished in 2007 and remaining upgrades financed by the loan will be completed by 2012. The loan will pay for upgrades at four of the plant's 12 generation units.

Lignite is dirtier than other, harder grades of coal and also generates more carbon dioxide. The plant burns 36 million tons of the fuel annually.

8. French Plan Aims to Expand Market For CNG Vehicles

On July 4th, France unveiled a plan to support the use of vehicles powered by compressed natural gas, or methane, as part of wider efforts to fight air pollution and climate change. The plan commits France's ministry of economy, finances, and industry, state-owned utility Gaz de France, oil major Total, leading retailer Carrefour, and vehicle producers PSA Peugeot Citroen, Renault, and Renault Trucks to undertake a series of efforts to boost the number of CNG-powered vehicles by 2010.

Industry Minister Francois Loos said a series of tax breaks for individuals and businesses for the purchase of CNG-powered vehicles will remain in place through 2010, and vowed that France will push for harmonized favorable taxation on natural gas for vehicles across the 25-member European Union.

Loos also promised to put greater pressure on government agencies to incorporate alternative-fuel vehicles into their fleets, as required by framework clean air legislation.

The joint public-private partnership calls for a near-doubling of the CNG-powered bus fleet from today's 1,600 buses to at least 3,000 by 2010. It also calls for a quadrupling of the CNG-powered garbage truck fleet from today's 300 trucks to at least 1,200 by 2010, and for an increase in the fleet of public and private sector CNG-powered light utility vehicles, estimated at 5,500 units.

The protocol also sets a target for having at least 100,000 CNG-powered cars on the road by 2010 and calls for the creation of a nationwide network of at least 300 service stations and for new home-fueling options.

France currently has about 5,000 CNG-powered passenger cars on the road, and more than 180,000 cars powered by liquefied natural gas that has won wider use among French drivers due to a better distribution network.

9. U.K. Environment Department Annual Report Stresses Climate

The U.K. Department of Environment, Food, and Rural Affairs (DEFRA) annual report, released June 17, describes changes in U.K. environmental policy and regulation over the past year and outlines the department's goals for the years ahead, stressing the importance of British leadership on climate change issues. The 369-page report quotes Environment Secretary Margaret Beckett saying that Britain is being transformed from an "environmental laggard" to an "environmental leader."

The report highlights recent DEFRA initiatives including the creation of a new body, Natural England, to unify and streamline environmental resource management; the passage of the Clean Neighborhoods and Environment Act which grants local authorities more power to tackle environmental problems; and the establishment of the Environmental Stewardship Scheme, which provides funding to farmers who "deliver effective environment management."

DEFRA is the central government ministry responsible for setting U.K. environmental and agricultural policy.

A separate government department, the Environment Agency, charged with environmental regulation and enforcement in England and Wales, issued its own state of the environment report June 9. That report, called A Better Place?, concluded that while by some criteria air and water quality were improving in the United Kingdom, decreasing biodiversity, the effects of global warming, and the risk of flooding were all taking their toll.

10. Draft EU Paper Suggests Including Airlines in Emissions Trading

The European Commission will outline a strategy in the coming months for involving the commercial aviation sector in the EU greenhouse gas emissions trading scheme in 2008, the EU executive body confirmed July 25. Commission officials asserted that most European airlines agree with the plan, although some are lobbying to have the implementation date pushed back to 2012. The EU emissions trading scheme, which was launched in January, is aimed at helping the European Union reduce greenhouse gas emissions as required under the Kyoto Protocol.

According to a draft "communication" from the Commission, "It is the view of the Commission that both emission charges and emissions trading are compatible with the current international legal framework for aviation." The Commission said that "emissions charges" were not supported by the industry, but that the proposal for including airlines in the EU trading scheme had the backing of the International Civil Aviation Organization.

According to the Commission's communication, "the concept of emissions charges has been contentious at the international level and the extent to which such charges can be applied by the states to foreign carriers was the single most disputed issue at ICAO's 35th Assembly in October in 2004. In contrast, the concept of incorporating international aviation emissions into EU member states' existing emissions trading schemes has been explicitly endorsed by ICAO." The Commission said the plan must cover emissions from "any flight departing from the EU," including international flights.

"Narrowing the scope to include only flights that both depart and land in the EU would address less than 40 percent of the emissions from all flights departing from the EU," the document said. "In addition, a narrow scope would not provide a model for wider international application and would also favor long-haul over short-haul flights, thus contradicting the core environmental objectives. Similar concerns are valid for an approach covering only emissions in EU airspace, as it would not hold the potential for covering all emissions while significantly complicating the monitoring of emissions."

Overall, the Commission estimated that the cost of an airline ticket would increase by as much as [Euros] 9 (US \$11) per return flight. "Air transport demand would not fall but would simply grow at a slightly slower rate," the Commission said, predicting that higher ticket prices would shave a small amount off the business-as-usual forecast of more than 4 percent growth in demand over the five-year period 2008-2012.

"Given these low estimates for ticket price increases, any effect on tourism or peripheral regions relying on aviation as a key mode of transport would be very limited and could, if necessary, be addressed within the existing framework for public service obligations," the document said.

It calls for a working group to be set up to define the precise modalities for incorporating the EU aviation sector into the emissions trading scheme. It expects the formal legislative proposal to be put forward in 2006.

A final communication from the Commission is expected to be published in the second half of 2005.

11. British Aviation Industry Voluntary Initiative Aims to Cut Emissions

On June 20th, a group of associations representing the U.K. aviation industry launched a voluntary initiative aimed at curtailing environmental impacts generally and greenhouse gas emissions in particular. The "Sustainable Aviation" plan is outlined in a 12-page report that describes commitments made by the airlines, airports, and aviation equipment manufacturers.

In the plan, manufacturers pledge to improve fuel efficiency 50 percent per kilometer and to reduce emissions of nitrogen oxides by 80 percent and perceived external noise by 50 percent by 2020 from 2000 levels.

Airlines pledge to find "practical solutions for the inclusion of aircraft carbon dioxide emissions" in the EU Emissions Trading Scheme by 2008 or as soon as possible thereafter. And airports pledge to "actively work on methods to improve noise, air quality, and traffic congestion levels in their local communities."

The initiative is described as a response to the U.K. government's Aviation White Paper released in 2003.

12. Record Temperature Sends Levels Of Air Pollution In Athens Soaring

The hottest day in the capital so far this year, with the temperature reaching 40 Celsius (104F), sent Athenians in search of shade but also brought dangerous levels of ground-level ozone to some parts of Athens, the Public Works and Environment Ministry said. The temperature is expected to reach only 36C (97F) today, while the ministry advised people to avoid using their cars as much as possible to avoid a further buildup of air pollution.

13. Fuel Shortage Could Mean Rocky Road For Diesel

The relentless advance of the diesel-powered car in Europe could soon hit a snag a shortage of diesel. With consumption of diesel on Europe's roads growing rapidly and industrial use surging in China, oil experts as quoted in the Financial Times project a substantial shortfall within 10 years.

For example, Wood Mackenzie, the oil consultancy, says that without extra large-scale investment in refineries by the oil companies, the continent will suffer a 50m tonne shortfall by 2015 about a fifth of projected demand.

In the past decade or so, European governments have given drivers substantial tax incentives to buy diesel-powered cars. Diesel engines are more efficient than petrol ones and emit fewer greenhouse gases. The policy has been a runaway success. The European Automobile Manufacturers Association suggests that half of all new cars sold in the region this year will run on diesel, up from 14 per cent in 1990.

As a result, diesel consumption has been rising by more than 4 cent a year. By contrast, petrol consumption has been falling in the past five years, by about 2.3 per cent each year, according to the Institut Français du Pétrole. The trend seems likely to continue. Wood Mackenzie says that demand in Europe for road diesel is set to rise from about 200m tonnes a year now to 250m in 10 years.

To meet that demand, the region must build up to 10 "hydrocracking" units to convert unwanted fuel oil to "middle distillates" such as diesel and jet fuel in the next 15 years, according to oil consultants Purvin & Gertz. About half of that capacity will be needed in the next five years. Even now, prices are rising. In Britain, diesel users have traditionally paid a premium of about 4p a liter during the winter. That premium is now being paid almost all year round in the UK, where both fuels are taxed equally.

Luke Bosdet of the AA Motoring Trust says he is already hearing concern from diesel-car drivers. "You've had about five years of consistent growth [in diesel use]," he says. "Why hasn't the industry adjusted to take account of that?" The oil companies that own most of the refining industry in Europe built their plants in the 1970s to produce petrol, not diesel. Purvin & Gertz calculates they need to spend about \$12bn to upgrade them to produce more diesel. Companies such as Royal Dutch Shell and BP say they have had to invest billions of dollars to reduce the sulphur content of their fuel to meet European Union regulations. They are also having to upgrade refineries to take heavier crude oil from a wider range of sources. But some analysts say oil companies have been reluctant to invest in refineries because it has traditionally been a lower-margin business.

“The oil majors have not been willing to put their money into refinery investments because they feel they can make more money by drilling holes in the ground,” says Colin Birch, senior principal at Purvin & Gertz.

Dominique de Villepin, the French prime minister, last week called on oil companies to invest more in refining. France's Total, Europe's biggest refiner, has announced plans to boost investments by 70 per cent, mainly to increase its diesel output.

At the same time [as Europe is short of diesel], Asia Pacific and the US will be deficit-diesel,” Ms Jamieson says. “We will need to see further investment in upgrading projects globally, as well as additional refining capacity in Asia.”

14. T&E Charges Commission's Vehicle Emissions Target Too Weak

Many vehicles adhering to the proposed Euro 5 benchmark - the EU's toughest ever emissions standard - would be considered too dirty for American roads. The European Federation for Transport and Environment (T&E) has condemned the Euro 5 proposals, which would see further reductions in emissions of particulate matter (PM) and nitrogen oxides (NOx). The new standards, while an improvement, are unambitious and fall short of what is already possible, say the group.

They also lag behind their American equivalent, the Tier 2 requirements adopted by the US Environmental Protection Agency. In their current form the Euro 5 proposals, expected to become law in 2008, would see the maximum NOx emissions from diesel vehicles cut by 20%, to 200 mg/km. Their American counterpart will require diesel engines to emit no more than 70 mg/US mile.

Current particulate emissions from Euro diesels will be slashed by the new standards, on the other hand, with an 80% reduction expected. Smaller reductions are demanded of petrol engines, with cuts of 25% of NOx and hydrocarbon emissions expected.

The EC has acknowledged the NOx cuts from diesel emissions are lower than those in the US, and that it is already possible to reduce them further, but has insisted the technology to do so 'is not yet mature'.

15. European Commission Proposes CO2-Based Car Taxation

The European Commission has presented a proposal for a Directive that would require Member States to re-structure their passenger car taxation systems. The proposal aims to improve the functioning of the Internal Market by removing existing tax obstacles to the transfer of passenger cars from one Member State to another. It would also promote sustainability by restructuring the tax base of both registration taxes and annual circulation taxes so as to include elements directly related to carbon dioxide emissions of passenger cars. The proposal aims only to establish an EU structure for passenger car taxes. It would not harmonize tax rates or oblige Member States to introduce new taxes.

"Following the extensive consultations that the Commission has conducted with stakeholders, we believe that there is strong support for the abolition of registration taxes which give rise to double taxation for European citizens and create fragmentation within the European car industry" said EU Taxation and Customs Commissioner László Kovács. "There is also considerable support for tax measures that would encourage consumers to select more environmentally friendly passenger cars".

The Commission's passenger car tax proposal contains three elements

- Abolition of car registration taxes over a transitional period of five to ten years. The Member States' revenues would not be affected if the gradual abolition of registration taxes is accompanied by a parallel increase of annual circulation taxes and, if necessary, other taxes. A gradual change would protect car owners from dramatic devaluations of their cars. The transitional period would also allow those Member States applying high registration taxes to make the necessary structural changes to their car tax systems.
- A system whereby a Member State would be required to refund a portion of registration tax, pending its abolition, where a passenger car that is registered in that Member State is subsequently exported or permanently transferred to another Member State. This measure would aim both to prevent the double taxation that occurs at present and to make this kind of taxes fairer by relating them to the actual use of the car in the Member State concerned. A similar refund system would be introduced for annual circulation taxes.
- The introduction of a CO₂ element into the tax base of both annual circulation taxes and registration taxes. This would mean a tax differentiation on the basis of the number of grams of carbon dioxide emitted per kilometer by a car. By 31 December 2008, at least 25% of the total tax revenue from registration and annual circulation taxes should derive from the CO₂ based element of the taxes and this figure should rise to 50% by 2010.

16. Italy's State of the Environment Report Sees Worse Emissions

On July 27th, Italy's Ministry of Environment released its annual report on the country's environment, showing an increase in waste recycling and a slight decline in per capital traffic but worrying indications in other areas, including greenhouse gas emissions. The 1,486-page 2004 Environmental Data Yearbook is the first environmental yearbook not to be presented by former Environment Minister Altero Matteoli, who took office in 2001 but was fired in mid-July after clashing with the leadership of his party. Instead, Giorgio Cesari, director general of the Agency for Environmental Protection (APAT), the ministry's technical wing, presented the yearbook along with several members of Parliament and three vice-ministers.

According to the report, Italy's greenhouse gas emissions increased 8.1 percent between 1990 and the end of 2004. Under the terms of the EU burden-sharing agreement for implementing the Kyoto Protocol, Italy must reduce these emissions by 6.5 percent from 1990 levels by the period 2008-2012. To reach this target, Italy must now reduce emissions by 13.5 percent from the 2004 level.

Other indicators showed that the number of days where smog was considered a health risk rose in all of Italy's five largest cities, fresh water quality in the country's lakes and rivers worsened slightly, and the number of companies fined for environmental abuses nearly doubled.

The worsening smog and greenhouse gas emissions come despite a 0.1 percent decline in per capita auto traffic, following a rise of 1.6 percent a year earlier. Officials said that was mostly due to rising gas prices and that a further reduction was likely in 2005.

17. BMW Introduces New Models, All Diesels Will Come With Filters

Introducing three new models, updated engines, a wider range of equipment as well as new colors and options, BMW's upper midrange segment is starting into the new model year. With these new models and features, the BMW 5 Series as of autumn 2005 comprises a total of no less than 13 Saloons and 10 Touring models all fulfilling the EU4 emission standard. **All diesel models are equipped with a maintenance-free particle filter.**

The model range extends from the 520d with its four-cylinder turbodiesel power unit (120 kW/163 hp) all the way to the four-door M5 sports car featuring a V10 power unit (373 kW/507 hp).

The driving power in the 540i is the smaller of the two V8 power units featuring VALVETRONIC and double-VANOS introduced for the first time in the BMW 7 Series in spring 2005. Maximum output from 4,000 cc is 225 kW/306 hp, maximum torque of 390 Nm/287 lb-ft comes at 3,500 rpm. Fitted as standard with a six-speed manual gearbox, the new 540i accelerates to 0-62 mph in 6.2 seconds and reaches a top speed of 155 mph cut off electronically. Fuel consumption is 11.0 liters/100 km or 25.7 mpg Imp in the EU cycle. The level of features and equipment is the same as in the 535d.

The V8 power unit featured in the new 550i displaces 4,799 cc and develops maximum output of 270 kW/367 hp, with a 490 Nm/361 lb-ft torque peak at 3,400 rpm. With its manual gearbox, the 550i accelerates to 0-62 mph in 5.5 seconds and takes 5.2 seconds to sprint from 80-120 km/h in fourth gear. Top speed of both the Saloon and Touring is 155 mph (limited electronically).

Despite the significant increase in the car's power and performance, fuel consumption of the 550i, at 11.1 liters/100 km or 25.4 mpg Imp in the combined EU cycle, remains almost at the same level as on the former model. And at the same time the 550i now complies with the US ULEV II emission standard, and not "just" with the LEV standard, as before (EU4 in Europe).

Both the BMW 540i and the BMW 550i come as standard with a manual six-speed gearbox, six-speed automatic transmission with Steptronic being available as an option. The BMW 550i is also available, as yet a further option, with BMW's six-speed SMG transmission.

The new straight-six diesel engine in the BMW 530d (Saloon/Touring) with its all-aluminum crankcase and third-generation common rail with piezo fuel injection technology has been used since spring 2005 in the BMW 7 Series. Developing maximum output of 170 kW/231 hp at 4,000 rpm and peak torque of 500 Nm/369 lb-ft all the way from 1,750–3,000 rpm, this power unit offers the highest level of output density and the highest torque of any diesel engine within the BMW 5 Series.

18. First Chinese Cars Arrive For Sale In W. Europe

The first Chinese cars for sale in Western Europe have arrived in the Belgian port of Antwerp. According to China Daily, Dutch car dealer Peter Bijvelds said he had already found buyers for the 200 Landwind five-door sports utility vehicles (SUVs) and was confident of selling about 2,000 of them this year. Bijvelds said he was selling the cars, made by Jiangling Landwind Motor of Jiangling Motors Group, for nearly half the price of their nearest competitor.

Bijvelds has a five-year exclusive deal with Jiangling to sell the SUVs in 27 European countries, and said he was holding talks to set up a distribution network in Belgium before expanding across the continent.

It is priced at about 17,000 euros (\$20,220) after taxes in the Netherlands.

Bijvelds' dealership, based in the southeastern Dutch village of Erp, is making alterations to the Chinese vehicles to meet Europe's strict emissions standards. One version of the SUV has a 2.8-liter diesel engine made by General Motors Corp. It is also available with a 2-liter or 2.4-liter petrol engine made by Mitsubishi.

Japan's Honda Motor Co Ltd began exporting Chinese-made Jazz compacts to Europe in June 24, but the first shipment of 150 cars did not arrive before the Landwind vehicles. Honda's joint venture in Guangzhou with Guangzhou Auto Group Co Ltd and Dongfeng Motor Group Co Ltd plans to build some 10,000 Jazz units this year exclusively for export to Europe.

19. WWF Report Sees Rising Temperatures in Europe

The World Wildlife Fund (WWF) released a report Aug. 11 which found that 13 out of 16 major European cities have experienced increased average summer temperatures since the early 1970s of at least 1 degree Celsius, with some cities seeing a rise of more than 2 degrees Celsius. According to the report, Europe Feels the Heat, cities that have experienced particularly large increases in summer temperatures include London, Athens, Madrid, Luxembourg, Stockholm, Brussels, Rome, and Vienna.

20. Over 600 SMS Alerts On Vehicle Exhaust in Malta

The SMS emission campaign in Malta is gaining momentum. The clouds of vehicle exhaust that pollute the streets could well thin out one day if text message alerts continue to pour in at the current rate.

In just three days, 639 reports of emissions have been logged with the Malta Transport Authority under its new Emission Alert SMS 4 Clean Air campaign, MTA chairman Gianfranco Selvaggi told the press. Starting next week, these vehicles will have to undergo tests to establish whether their emissions are within limits.



Motorists and commuters are being urged to assume the role of enforcement officers by sending a text message to 5061 1899 with the registration number of the vehicle belching out the offending smoke.

The procedure to lodge a report is simple. Whenever you see a vehicle emitting exhaust fumes that you believe are over the established limit just send an SMS with the registration number. The vehicle will be called in for an

inspection and an emission test carried out. If it fails the test, a citation of Lm20 will be issued.

The owner must address the problem and fix the vehicle within one week, and take it back for subsequent emission tests. Further failures will result in licence restriction and citations.

Mr Selvaggi said the authority will adopt a zero tolerance attitude to pranksters solely interested in causing inconvenience.

"The response we've had so far shows that many people care about bettering the environment they live in," he said.

Vehicle pollution has been directly linked to increased levels of asthma in children and other bronchial diseases.

Last Tuesday, Roads Minister Jesmond Mugliett admitted the limitations of Vehicle Roadworthiness Tests, as several cars were seemingly slipping through the supposedly rigid net and continuing to emit polluting fumes.

Mr Selvaggi assured motorists that ADT inspectors were trained enough to expose any last-minute adjustments to the vehicle engine to avoid any sanctions.

NORTH AMERICA

21. US Energy Bill Signed Into Law

Senate and House negotiators agreed to a broad energy bill, clearing the way for votes in each chamber just before their before the summer recess. After the full House and Senate approved the legislation, it was forwarded to the president to sign into law. The bill focuses on increasing production of oil, natural gas and other energy sources but critics say it does little to encourage more oil conservation or reduce oil imports. The United States now imports 60 percent of the 21 million barrels of oil consumed each day.

The final bill produced includes two key diesel-related provisions: a new national incentive program to encourage clean diesel retrofit and consumer tax credits for the purchase of diesel cars, pick-ups and SUVs.

A. Diesel Retrofit

The Diesel Emissions Reduction Amendment (DERA) provides \$1 billion over five years to speed the transition to cleaner diesel. It establishes national and state-level voluntary retrofit programs to encourage equipment owners to upgrade their fleets with new clean diesel technology.

B. Consumer Tax Credits

Congress has made both clean diesels and hybrids eligible for the same advanced-vehicle consumer tax credits.

C. Environmental Concessions

The conference committee decision to omit or soften a number of controversial environmental provisions seems to have helped to pave the way for passage.

Key last-minute revisions to attract Democratic support for the bill on both floors include: rejection of a liability protection for producers of the fuel additive methyl tertiary butyl ether (MTBE); removal of language that would have allowed EPA to extend attainment deadlines for the air pollutant ozone; and a decision to soften House-proposed exemptions from the National Environmental Policy Act.

However, some Democrats are criticizing a last-minute change to the bill that would limit judicial review of environmental permits for liquefied natural gas facilities and natural gas pipelines.

i. MTBE Liability

During final negotiations, the conference committee rejected a House-approved plan that would have granted liability protection to producers of the groundwater contaminant methyl tertiary butyl ether (MTBE), but included language that would allow future legal claims against the MTBE industry to be transferred from state to federal courts, which is generally viewed by industry as a more favorable venue. The conference bill also would grant EPA new authority to curb leaks from underground storage tanks that contain MTBE and other fuels, including new procedures that would prohibit delivery to into suspect tanks.

ii. Nonattainment Deadlines

In addition, House and Senate negotiators rejected a plan pushed by conference committee Chairman Joe Barton (R-TX) that would have delayed deadlines for local authorities to meet EPA's new ozone standards, as well as a proposal favored by Barton to expedite permitting of new refining capacity by giving the Department of Energy a lead role in the process.

iii. NEPA Rollbacks

The final legislation also appears to not include some of the most ambitious rollbacks of National Environmental Policy Act (NEPA) protections proposed by the House, including language that would have provided new liability protection to new owners of abandoned oil and natural gas wells that are a source of pollution. The legislation includes a legal presumption allowing several types of drilling and other activities on public lands without additional public comment under NEPA, but it restricts the flexibility in many cases to lands where activity has occurred in the last five years and where some level of NEPA analysis has already occurred, according to a copy of the "manager's amendment" to the bill.

D. Key Provisions

Key elements included in the energy bill are detailed below, along with several items that were dropped in recent days:

COST:

* Offers about \$11.4 billion in tax breaks and incentives over 10 years, mostly to boost wind and solar power, with lesser amounts going to oil and natural gas production.

OIL/GAS:

* Requires a delay of at least 141 days in a US government review of the Chinese-government owned CNOOC Ltd oil company's \$18.5 billion bid for American-oil giant Unocal.

* Offers energy companies royalty relief for drilling in Gulf of Mexico deep waters.

* Requires an inventory of offshore oil and natural gas resources, including areas off Florida where drilling is banned.

* Gives Federal Energy Regulatory Commission, not the states, exclusive authority to approve LNG import terminals.

* Expands Strategic Petroleum Reserve by 300 million barrels to 1 billion barrels.

* Bans oil drilling in the Great Lakes.

* Dropped language in Senate bill requiring the federal government to find ways to cut US oil demand, or to require better fuel mileage on new sport utility vehicles and other gas-guzzlers.

* Dropped language to open the Arctic National Wildlife Reserve to drilling, but this is expected to be added to a separate government funding bill later this year.

MOTOR FUEL:

* Requires the use of 7.5 billion gallons of ethanol a year as a gasoline additive by 2012, almost double the current use.

* Allows parties in liability suits related to contamination from methyl tertiary butyl ether to remove ongoing cases to a federal court. Does not extend liability protection to makers of MTBE, which has contaminated state water supplies.

UTILITIES/NUCLEAR:

* Repeals a Depression-era law, the Public Utility Holding Company Act, which prevents certain utility mergers.

* Offers \$2 billion in federal insurance to cover delays in building 6 new nuclear power reactors.

* Imposes reliability operating standards on utilities to protect the US electric grid from blackouts.

* Extends expiring accident insurance protection for owners of nuclear power plants by 20 years.

* Spends \$1.3 billion for experimental Idaho reactor that would also produce hydrogen fuel.

* Permits power lines across federal public lands, overriding federal agency objections to siting decisions.

* Dropped proposal that would have required US utilities to generate 10 percent of their electricity from renewable sources such as windmills by 2020.

MISC:

* Moves the start of daylight-saving time in 2007 from the first Sunday in April to the second Sunday in March, and extends it by one week to the first Sunday in November.

* Increases funding to develop low-emission power plants fueled by coal.

* Creates a federal panel to promote technologies that reduce greenhouse gas intensity, but does not mandate specific cuts in US global warming emissions.

* Studies the health impacts of people living close to petrochemical and oil refineries.

22. EPA Adopts Stationary Diesel Engine Regulations

As part of a nationwide effort to control fine particle and ground-level ozone pollution, EPA has proposed emission standards for stationary diesel engines. The proposed standards, known as New Source Performance Standards, will reduce harmful emissions of nitrogen oxides, particulate matter, sulfur dioxide, carbon monoxide, and hydrocarbons from new, modified, and reconstructed stationary diesel internal combustion engines. The standards will subject stationary diesel engines to the same stringent levels required by EPA's nonroad diesel engine rule.

As proposed, the rule will affect 81,500 new stationary diesel engines and result in total pollutant reductions of over 68,000 tons in 2015. Emissions reductions will occur gradually from 2005 to 2015, reaching reductions of 90 percent or more from baseline levels in some cases. EPA estimates the total nationwide annual costs for the rule to be \$57 million in the year 2015.

Stationary diesel internal combustion engines are used to generate electricity and operate compressors at facilities such as power and manufacturing plants. They are also used in emergencies to produce electricity and pump water for flood and fire control. EPA will accept comments on this proposed rule for 60 days following publication of the proposed rule in the Federal Register.

23. US Joins International Motorcycle Testing Effort

EPA is planning to propose modernized emissions testing for new motorcycles to better reflect real-world conditions. The new test procedures will reflect those recently adopted by the United Nation's World Forum for Harmonization of Vehicle Regulations. Public health and the environment will realize the emissions control benefits of better testing, while the motorcycle industry can gain greater efficiencies by using one test procedure worldwide.

This is the first time the forum has developed a global technical regulation focusing on the environment. The internationally recognized regulation is supported worldwide by the United States, Canada, China, France, Germany, Japan, and several other countries.

Through its standard regulatory process, EPA will propose to implement the new Forum-approved Worldwide-harmonized Motorcycle Test Cycle, which incorporates state-of-the-art emissions testing technologies and more accurately reflects current driving characteristics. The new test procedure was developed by experts from eight nations and the European Commission, with input from the motorcycle and emission control technology manufacturing industries, as well as from motorcycle drivers.

Once EPA finalizes the new test cycle regulations, they will be used to certify that new on-highway motorcycles meet U.S. emissions standards. This regulation will not affect motorcycles that are currently on the road or those certified for sale in the United States prior to final adoption of the new test procedure regulations. EPA plans to issue a proposed rulemaking in 2006.

24. EPA Diesel Program Falling Short Of Emissions Targets

A critically important U.S. EPA agreement with diesel engine manufacturers has failed to achieve its key air pollution target, allowing continued emissions of more than 2 million tons of nitrogen oxide (NOx). EPA recently released figures showing the program had cleaned up only 200,000 tons of the 2.25 million tons of NOx that were supposed to be scrubbed out of the air under a 1999 consent decree between EPA, the Justice Department and the industry.

At issue is a part of the agreement requiring seven major diesel engine manufacturers to reprogram more than a million engines illegally equipped with "defeat devices," which allows them to pass an EPA emissions test then turn off pollution-control devices during highway driving.

About 1.3 million engines with such devices were already on the road at the time of the deal, and the EPA estimated that 90 percent of those -- about 1.1 million engines -- would be reprogrammed under the agreement. But six years later, only about 79,000 engines, or 7.2 percent of the total, had been updated with new equipment, EPA said.

Of the seven major companies, Caterpillar had the highest success rate with updates to about 14.4 of its engines. Volvo had the lowest -- 1.1 percent, equal to 87 engine updates.

When the agreement was first reached, then-Attorney General Janet Reno touted it as "one of the most important federal environmental enforcement actions in American history." The total settlement was then the biggest civil penalty ever handed down to the private sector for violation of environmental laws.

EPA and Justice Department officials briefed air quality officials on the status of the program last week. Participants at the briefing said the government had no legal ways to speed up the updates.

The California Air Resources Board (CARB) decided last year it would require upgrades in all heavy-duty trucks by the end of 2005 and in medium trucks by the end of 2006. The decision came after California officials and environmental groups expressed dissatisfaction with industry's progress under voluntary measures. CARB officials estimate that the upgrades would eliminate nearly 30 tons of diesel pollution daily, the equivalent of removing 1 million cars from the state's highways. Diesel engine manufacturers have filed a lawsuit challenging the CARB requirements. A state Superior Court judge in April upheld a part of the rule, but the challenge by the engine manufacturers group is ongoing.

25. Draft EPA Risk Assessment Labels MTBE As 'Likely' Human Carcinogen

An EPA draft risk assessment that concludes the widely used gasoline additive MTBE is a "likely" human carcinogen would trigger, if approved, significantly more costly and extensive cleanups nationwide, agency sources say. This draft risk review emerged as Congress was debating possible defective product liability relief for MTBE manufacturers as part of comprehensive energy legislation.

MTBE liability protection has been a major sticking point for passage of final energy legislation for years. MTBE also has been the focus of more than 100 lawsuits particularly in East Coast states and California. Future litigation could be complicated by the new EPA findings because the fuel additive has contaminated drinking water supplies across the country.

EPA is circulating for internal review a draft risk study that for the first time pinpoints kidney and lymph node tumors as a result of MTBE exposure, sources say. The draft findings are currently undergoing review by EPA's waste, water, toxics and air offices, with comments due by Aug. 15. The risk assessment was conducted in response to widespread cleanup concerns, and the findings could eventually be entered into a database known as the Integrated Risk Information System (IRIS), which is used by federal and state officials in setting cleanup levels.

Cleanup standards based on the draft MTBE findings could result in billions of dollars in remediation costs in the 36 states where water agencies say there is significant MTBE contamination, according to agency sources.

The agency's draft review also considers a first-time risk estimate for non-cancer health effects that could translate into a 700 part per billion (ppb) public health standard, which is well above current EPA "taste and odor" guidelines used by drinking water utilities that attempt to keep MTBE levels below 20-40 ppb to address aesthetic concerns.

Much of the debate over the cost of cleanups is driven by concerns over the taste and odor of drinking water, rather than health risks, says a water utility source, who notes that utilities are using 5 ppb as a threshold for their cleanup estimates. That 5 ppb level is well below what had previously been considered a health concern because MTBE affects the taste and odor of water at relatively low levels. A teaspoon of MTBE is said to be detectable by taste and smell in an Olympic-size swimming pool. The utility source adds that the MTBE industry's own evidence shows that 20 percent of people can taste the contaminant at 1 ppb.

26. Greens and EPA Reach Agreement on Vehicle Air Toxics Emissions

Conservation groups have reached a milestone agreement with the Environmental Protection Agency to address emissions of cancer-causing pollutants from cars, trucks, and buses. The agreement is the result of litigation brought by Earthjustice on behalf of Sierra Club and U.S. Public Interest Research Group.

Amendments to the Clean Air Act in 1990 required EPA to promulgate rules by 1995 to reduce the toxic emissions from vehicles and fuels. EPA has indicated that cars, trucks, and buses are the number one source of toxic emissions in America. They emit more than one million tons of hazardous air pollutants every year, including more than 150,000 tons a year of benzene, a known human carcinogen.

EPA has acknowledged that, as a result of breathing toxic emissions from cars, trucks and buses, more than 100,000,000 Americans face a cancer risk that is well over the agency's one-in-one-million lifetime benchmark. The agency has also acknowledged that

benzene reduction in gasoline significantly reduces public exposure at a cost of only one-tenth of one cent per gallon.

In January 2004, conservation groups challenged EPA's inaction on regulating mobile source toxics in the U.S. District Court, District of Columbia Circuit. Today's agreement requires EPA to "sign a proposed rule containing requirements to control hazardous pollutants from motor vehicles and motor vehicle fuels" no later than February 28, 2006. A final rule on the action must be signed by February 9, 2007.

27. DOE Moves Toward Flexible Fuel Vehicles As It Phases Out CNG Use

DOE wants to make flexible fuel vehicles (FFVs) the future of its national vehicle fleet, while, simultaneously, moving away from compressed natural gas (CNG) and propane as the backbone fuel for its alternative fuel vehicle (AFV) fleet, according to recently released documents. The documents also show DOE plans to embark on the largest federal effort to develop a refueling infrastructure for E-85, the backbone alternative fuel for FFVs.

Part of DOE's shift away from CNG -- CNG use being the traditional hallmark of any government fleet in compliance with the Energy Policy Act of 1992's (EPACT) AFV mandate -- is due to a long-term policy outlook that sees CNG vehicle and refueling availability on the decrease and E-85 on the rise. It sees this trend while making the observation that alternative fuel infrastructure in the U.S. is currently inadequate, but may change, according to DOE's FY 2004 AFV Acquisition Report.

DOE did exceed EPACT's 75 percent AFV acquisition mandate in FY 2004, due to its high number of FFV purchases, not because of its overwhelming use of alternative fuels. The DOE acquired 880 AFVs, 811 of which were FFVs, placing it 81 vehicles over what would achieve the 75 percent EPACT compliance requirement, according to the report. The purchases earned it a total of 1,057 credits, giving it a near perfect 99 percent acquisition achievement.

But few of these vehicles are using E-85 (85 percent ethanol and 15 percent gasoline) or other alternative fuels, the report says. "In FY 2004, 21 percent of the fuel used in DOE AFVs was alternative fuels," the report says. "One reason for the relatively low alternative fuel use rate is the lack of sufficient alternative fuel infrastructure," it continued.

Unlike other agencies in the U.S. government, the DOE has the budget to build its own alternative fuel infrastructure on, or near, its installations around the country. It has decided to do so, to meet its planned increase in acquisition of FFVs over the next two years. DOE sees the lack of fuel availability as the primary problem in meeting EPACT mandates. For now, its only solution is to build AFV refueling depots, spending \$2.1 million to do so. This is more spending than any other federal agency, according to sources.

"To remedy this [lack of alternative fuel infrastructure], DOE invested \$2.1 million to build new alternative fuel stations at DOE locations throughout the United States," the report stated. "DOE identified 12 of the largest DOE fleets and strategically funded stations based on need."

Most stations are not yet open for business, but some are just coming online, according to DOE. The Department cites planning and construction as the main reasons for the delay. Nevertheless, the DOE insists that these new government funded alternative fuel filling stations will be functional beginning in FY 2006.

The majority of new depots are for refueling E-85 FFVs, while a substantial amount will still be used for refueling CNG vehicles, and the remaining number of stations will offer B-20 (20 percent biodiesel, 80 percent petroleum diesel) refueling, totaling 30 new alternative fuel stations.

The breakdown is as follows: 15 stations for E-85, 9 stations for CNG, and 6 stations for B-20. The department says the decrease in availability of CNG and LPG (liquefied petroleum gas, propane) powered vehicles has steered its AFV acquisition policy to make the majority of its fleet FFVs.

"FFVs operating on E-85 comprise the majority of DOE's EPACT compliant fleet, with CNG vehicles making up most of the balance," according to the FY 2004 report. "As the availability of gaseous fuel (CNG and LPG) vehicle models decreases, these vehicle types will become less prevalent in DOE's fleet."

DOE's biodiesel use will also increase in the coming years, according to the report. Under EPACT, government agencies earn credits for every 450 gallons of neat biodiesel, or B-100 (100 percent biodiesel), used, and for every 2,250 gallons of B-20 used. In FY 2004, DOE earned 165 credits for biodiesel use.

28. Appeals Court Rules EPA Doesn't Have To Regulate CO2 Emissions

In a major legal victory for the Bush administration, a three-judge panel of the U.S. Court of Appeals for the District of Columbia Circuit ruled against 12 states, three cities, and more than a dozen environmental groups that had argued the EPA was obligated by the Clean Air Act to regulate CO2 emissions from cars and trucks, given the public health threat that climate change poses.

The Bush EPA, for its part, was happy that the 2-1 decision validated its approach (or lack thereof) to climate regulation. Industry representatives are going a step further and calling the decision a substantiation of their view that the science on global warming is still uncertain. "The court found that the science is not only inconclusive, but there's a significant amount of disagreement about the potential health effects of climate change - - there's a lot of speculation," said Lisa Jaeger, former acting general counsel for the EPA and a partner at Bracewell & Giuliani LLP, which represents energy interests. She quoted the section of the majority opinion written by Judge A. Raymond Randolph in which he claims that the "understanding of the relationships between weather/climate and human health is in its infancy." Attorneys general from 11 states who went to bat for the administration during the suit -- including Michigan and Texas -- also applauded the outcome.

Enviros, on the other hand, bristled at the decision. "Only one of the three judges addressed the central question in the case, ruling that the Clean Air Act empowers EPA to curb the pollution that causes global warming," said David Doniger, senior attorney

with Natural Resources Defense Council and policy director of its Climate Center, who also helped argue the case. Doniger explained that while the Clean Air Act directs the EPA to regulate air pollutants from motor vehicles "which may reasonably be anticipated to endanger public health or welfare," the two judges who ruled against the plaintiffs were looking for the kind of proof that's necessary in a criminal case. "Judge Randolph says, effectively, you have to have proof beyond a reasonable doubt. But in fact the Clean Air Act sets a much lower hurdle, regulating pollutants that can reasonably be anticipated as a danger."

A close look at the written opinions [PDF] of Randolph and Sentelle reveals that several of their reasons for rejecting the plaintiffs' case are irrelevant to issues of public health or environmental policy, and could be perceived as politically inflected. Randolph, for instance, cited the administration's concern that "unilateral regulation of U.S. motor-vehicle emissions could weaken efforts to persuade developing countries to reduce the intensity of greenhouse gases thrown off by their economies." Doniger countered that the issue of geopolitical bargaining chips had nothing to do with the case, also adding, "This is a laughable argument. The one thing that would encourage developing countries to act is a little leadership from the world's largest polluter."

Randolph also cited concerns that "piecemeal" regulation of CO₂ from vehicles would not cover other polluting industries, implying that this would pose an unfair disadvantage to automakers. Doniger stressed that the law applies to any source of pollution that "causes or contributes" to the problem, and does not stipulate the inclusion of all sources.

Sentelle's reasoning was similarly far-flung, according to enviros. "He concluded that the petitioning states, cities, and environmental organizations lack standing to sue over global-warming pollution," explained Doniger. "He said that because global warming is 'harmful to humanity at large,' no one can go to court. That's an absurd result, leaving no judicial remedies against illegal government action."

Though Randolph and Sentelle effectively determined that EPA was not obligated to regulate CO₂ under the Clean Air Act, their opinions never addressed directly the question of whether the act gives the agency the authority to do so. The dissenting judge, David Tatel, spoke to the issue head-on when he came down strongly on the side of the plaintiffs in his written opinion: "I have grave difficulty seeing how EPA ... could possibly fail to conclude that global warming 'may reasonably be anticipated to endanger public health or welfare.'" He added that "EPA has authority -- indeed the obligation" -- to regulate greenhouse-gas emissions from motor vehicles.

Because the case ultimately left this question of authority undecided, say enviros, it will not impede the efforts of California and other states to adopt their own limits on CO₂ emissions from motor vehicles.

29. Canadian Aviation Sector to Cut Emissions Voluntarily

Canada's Federal Transport Minister Jean Lapierre June 29 confirmed that the federal government had finalized an agreement with Canada's aviation industry on reducing the sector's greenhouse gas emissions. The voluntary agreement calls for a 24 percent reduction in emissions by 2012 from 1990 levels and includes an action plan to help air

carriers meet the target and a mechanism for reporting annual progress, Lapierre said in a statement.

The emissions reduction agreement is the first in the world for the aviation industry and will have an impact on cutting emissions outside Canada as well via its implementation for international flights, he said. A voluntary agreement made in the United Kingdom in June does not include such targets.

The agreement was reached in November 2004, but it was not formally signed until June 29, when the details were finalized, according to Lapierre.

"Domestic aviation accounts for almost 4 percent of Canada's transportation greenhouse gas emissions," Lapierre noted.

Under terms of the voluntary agreement, the Air Transport Association of Canada will promote the overall emissions reduction target by encouraging its member companies to improve their energy efficiency at an average rate of 1.1 percent per year, Transport Canada said in a background document.

The association will adopt and implement an action plan based on technically feasible, cost-effective, and commercially viable techniques and strategies, the department said. The association is also committed to promoting the purchase of more fuel-efficient aircraft by its members, using emissions trading and other mechanisms as needed, and monitoring its progress in meeting the reduction target, it said.

The agreement commits Transport Canada to providing technical assistance in developing baseline emissions estimates, target-setting, and identifying potential areas for reducing emissions, supporting information-sharing activities on operational opportunities and technologies to limit or reduce emissions, addressing barriers that could impede voluntary improvements in aircraft fuel efficiency, and supporting international efforts to limit or reduce the environmental impacts of the aviation system, according to the department.

Operational and technological improvements identified by Transport Canada as potentially contributing to reduced greenhouse gases emissions from the aviation sector include:

- continued improvements to Canada's air navigation system;
 - improvements in noise reduction procedures, which can sometimes result in increased emissions;
 - promoting use of more fuel-efficient ground equipment, including alternative-fuel vehicles and use of measures to improve ground operations;
 - evaluation and documentation of emissions reductions from implementing other environmental mitigation measures, including use of centralized de-icing pads and noise reduction;
 - improved airport design that encourages airports to take into account aircraft operating efficiencies, including proper land zoning to address future noise reduction and the use of high-intensity runway operations;
 - development and adoption of a code of best practices for emission reductions;
- and

- promotion of aircraft technology improvements, including through the replacement of older and less fuel-efficient aircraft with aircraft that incorporate the latest fuel efficiency measures.

30. Final EPA Staff Paper Recommends Stronger PM Standards

A key document in EPA's review of national air quality standards for particle pollution recommends the administrator consider strengthening and refining current standards to better protect public health and visibility. Based on the latest science, the "final staff paper" does not change current air quality standards. It does, however, contain EPA staff recommendations for the administrator to consider in upcoming decisions about revising the agency's national standards for fine (PM_{2.5}) and coarse particles (PM₁₀).

The Clean Air Act requires EPA to periodically review air quality standards to ensure they provide adequate health and environmental protection and to update those standards if necessary. In December 2004, EPA and states began implementing the first fine particle standard when the agency designated areas of the country that require additional local, state and federal steps to reduce PM 2.5.

While acknowledging remaining uncertainties, the staff paper concludes that the latest scientific, health and technical information about particle pollution supports strengthening EPA's current health-based standards for fine particles. The paper recommends approaches for doing so.

The staff paper recommends that EPA continue to regulate but revise the current PM₁₀ standards with a new health-based standard for particles known as "thoracic coarse" particles -- particles between 2.5 and 10 micrometers in diameter that can be deeply inhaled. Staff recommends that such a standard apply to more toxic urban coarse particles.

In addition to the changes to improve public health protection, the staff paper recommends that the administrator consider revising the existing secondary fine particle standard to improve protection of visibility in urban areas.

The assessments, conclusions, and recommendations included in the staff paper are staff judgments. They do not represent agency decisions on the PM standards. The agency is required by a consent decree to issue a proposal regarding the particle pollution standards by Dec. 20, 2005, and to issue a final rule by Sept. 27, 2006. That rule may, or may not, include changes to the existing standards.

EPA estimates that meeting existing PM 2.5 standards will prevent at least: 15,000 premature deaths; 75,000 cases of chronic bronchitis; 10,000 hospital admissions for respiratory and cardiovascular disease; hundreds of thousands of occurrences of aggravated asthma; and 3.1 million days when people miss work because they are suffering from symptoms related to particle pollution exposure.

The reduction of fine particle pollution is a critical element of the Administration's comprehensive national clean air strategy. The strategy includes EPA's recent Clean Diesel Program to reduce pollution from highway, nonroad and stationary diesel engines,

the Clean Air Interstate Rule to reduce pollution from power plants in the eastern United States, and the Clean Air Visibility Rule.

There are a number of important strengthening changes evident in the final staff paper recommendations, compared to the second draft. The fact sheet language is excerpted with comments noting differences from the previous draft highlighted.

Fine particles - primary standards

PM2.5 should continue to be used as the indicator for fine particles.

Consideration should be given to revising the current PM2.5 primary standards to provide increased public health protection from the effects of both long- and short-term exposures to fine particles in the ambient air. Staff provides two alternative approaches to establishing more protective suites of daily and annual PM2.5 standards.

"Option A"- Retain annual standard at 15 ug/m³, together with a revised 24-hour PM2.5 standard in the range of 35 to 25 ug/m³ (based a 98th percentile form for a standard set at the middle to lower end of this range, or a 99th percentile form for a standard set at the middle to upper end of this range)

OR

Option B"- Revise annual PM2.5 standard, within the range of 14 to 12 ug/m³, together with a revised 24-hour PM2.5 standard in the range of 30 to 40 ug/m³, with either the annual or the 24-hour standard, or both, at the middle to lower end of these ranges

The recommendation in Option A has been clarified to indicate that if a 98th percentile form is selected, the standard level should be picked at the mid to lower end of the range, i.e. 30 or 25 ug/m³.

The recommendation in Option B has been altered to extend the lower end of the range for the 24-hour standard down to 30 ug/m³ (it had been 35), as implied by the CASAC recommendations. In addition, Staff now recommend possible selection of the 24-hour standard at the mid to low end of the range, possibly in conjunction with an annual standard at the mid to low end of the range. Prior recommendation had been for the selection of annual standard only at mid to low end of range. Note that percentile form of the standard is unclear for Option B.

Coarse particles - primary standards

The current primary PM10 standards should be revised by replacing the PM10 indicator with an indicator of thoracic coarse particles generally found in urban areas that does not generally include fine particles. The recommended indicator includes particles larger than 2.5 micrometers but smaller than 10 micrometers, (PM10-2.5), with a focus on coarse particles that are generally present in urban environments, expressed as UPM10-2.5.

Staff recommends consideration of a 24-hour UPM10-2.5 standard with a level in the range of approximately 50 to 70 ug/m³, 98th percentile form, or approximately 60 to 85 ug/m³, 99th percentile form. The lower end reflects a more precautionary interpretation

of the health effects information, while the upper end would provide protection that is approximately equivalent to that provided by the current PM10 standards.

The ranges for the coarse particle standard have been lowered. In the earlier draft, Staff was recommending a 24-hour standard of 65-75 ug/m3 98th percentile, or 75-85 ug/m3 99th percentile.

Secondary standards

For secondary standards, staff recommends that consideration be given to revising the current suite of secondary PM2.5 standards to provide increased and more targeted protection primarily in urban areas from visibility impairment related to fine particles.

Staff recommends consideration of a 4- to 8-hour PM2.5 standard within the range of 30 to 20 ug/m3, depending on the form of the standard. Staff also recommends consideration of a percentile-based form for such a standard, focusing on a range from the 92nd to the 98th percentile of the annual distribution of daily short-term PM2.5 concentrations, averaged over 3 years.

Consistent with CASAC recommendations, staff is now recommending a 92nd to 98th percentile form for the standard, compared to 90th percentile in the earlier draft. Staff now recommend that the level picked be tied to the form of the standard.

31. Ontario Report Cites Cross-Border Air Pollution Issues

On June 16th, Ontario Environment Minister Leona Dombrowsky released a report that concludes the province must seek cooperation from neighboring jurisdictions in the United States to resolve its air quality problems. The report, Transboundary Air Pollution in Ontario, confirms that emissions from U.S. industries are responsible for a significant share of harmful air pollution in Ontario and the costs of the resulting environmental and health damage, Dombrowsky said in a statement.

"This isn't about laying blame," she added. "It's about working together with our U.S. colleagues to find cross-border solutions."

The report estimates that Transboundary air pollution from the United States is responsible for about 55 percent of the annual total cost of environmental and health damage caused in Ontario, or about C\$5.2 billion (\$4.4 billion) per year, she said. It projects total environmental and health damage from air pollution in the province at C\$9.6 billion per year, she said.

Ontario will raise the need for a Canada-US. strategy on air emissions at the scheduled June 20 Shared Air Summit at the University of Toronto, Dombrowsky said. The summit will include policy makers from Ontario and neighboring U.S. states and will also feature discussion of general air quality issues and their environmental, health, and economic impacts, she said.

The report supports Ontario's longstanding position that a multi-jurisdictional strategy is needed to address Transboundary air pollution, the Ontario Ministry of Environment said

in a background document. Such a strategy should include a combination of domestic measures by individual states and provinces, as well as joint undertakings, the ministry said.

The report made a number of other key findings:

- Transboundary pollution from neighboring U.S. states is the dominant factor in determining Ontario's air quality during the May to September "smog" season each year.
- Air pollution from the United States is judged to be responsible annually for more than 2,700 premature deaths, 12,000 hospitalizations, and minor illness symptoms for 2.7 million others.
- Ontario is also responsible for some Transboundary pollution, with emissions from the province's industries having a negative impact on air quality in Quebec and the states of New York, Vermont, and New Hampshire.
- Ontario industries' contribution to high levels of ozone in the atmosphere range from about 1 percent in the Windsor area to as much as 16 percent in the area downwind of Toronto.
- Ontario's agricultural sector loses an estimated C\$200 million worth of production per year due to air pollution, for example through vegetable crop damage associated with elevated ozone levels.
- Air pollution causes C\$77 million in annual damage to the province's forests.

32. Report Recommends Improving Emissions Inventories in North America

On June 21st, a committee of air quality scientists and government officials June 21 urged the governments of the United States, Canada, and Mexico to move quickly to improve their emissions inventories. Existing inventories meet the needs of most current air quality programs, but they have deficiencies that will cause serious problems in addressing ongoing air quality issues, the NARSTO group said in releasing its first assessment of emissions inventories.

"Increased investments in emission inventory development are necessary to make sure that the emissions from all significant sources are adequately characterized. Better inventories, in turn, will lead to better and more cost effective emission control strategies," Bill Pennell, the organization's management coordinator, said in a statement.

NARSTO is a public-private partnership that coordinates research and assessments to support the development of air pollution management strategies. Originally an acronym for the North American Research Strategy for Tropospheric Ozone, its members include government agencies, utilities, industries, and air quality scientists from the three countries.

The current form of emissions inventories is effective in addressing ongoing air quality management goals, which have focused primarily on major, and relatively well characterized, sources, the group said in the report, *Improving Emission Inventories for Effective Air Quality Management Across North America: A NARSTO Assessment*.

Recently implemented regulatory programs, however, will focus more on pollution sources that are much more difficult to measure or model, it said. As that occurs, errors made in estimating pollutant emissions from smaller, individual sources will have serious consequences for air quality management efforts, it said. "These consequences could range from wrongly identifying a pollutant that should be controlled to overlooking source categories whose control could result in more cost-effective emission reductions," it said. "Incomplete or inaccurate information also limits the development of effective policies."

As an example, the NARSTO report cited efforts by the state of Texas to attain the Environmental Protection Agency's one-hour air quality standard for ozone in the Houston area. Based on existing inventories, the state concluded that Houston could meet the standard by reducing emissions of nitrogen oxides by 90 percent. However, a subsequent field study discovered sources of highly reactive volatile organic compounds that were not included in the existing inventory, the report said. New air quality modeling showed that reducing VOC emissions would require a cut of only 80 percent in NOx emissions at a lower cost than the initial plan, according to the report.

Key issues identified in the report as requiring resolution include:

- differences in the form of inventories among the three countries that cause problems in jointly managing air quality issues;
- failure to strictly apply quality assurance and quality control procedures in the development of emission models and inventories;
- significant uncertainties in mobile source inventories, particularly for emissions of VOCs, magnitude of carbon monoxide emissions, and trends in NOx emissions;
- uncertain measurement of emissions for fine particulates and their precursors, emissions from living organisms, toxic air pollutants, ammonia, fugitive emissions, and open biomass burning;
- basing emissions estimates on small numbers of measurements that may not represent real world activity;
- out-of-date methods for estimating emissions of individual chemical species; and
- failure to update emissions inventories in a timely manner.

The report outlines specific action plans for each country to address the identified issues, and warns that the governments will have to substantially increase funding for their emissions inventories to ensure they provide the best possible information for air quality policy development.

33. EPA Releases 2005 Fuel Economy Trends Report

EPA is releasing its annual report, "Light-Duty Automotive Technology and Fuel Economy Trends: 1975 Through 2005." The report provides data on the fuel economy and performance characteristics of light-duty vehicles (cars, vans, sports utility vehicles (SUVs), and pickup trucks) for model years 1975 through 2005. Since 1997 fuel economy has been relatively constant, ranging from 20.6 to 21.0 miles per gallon (mpg).

Model year 2005 vehicles are estimated to average 21.0 mpg. This is 0.2 mpg higher than 2004, but five percent below the fleet-average fuel economy peak value of 22.1 mpg achieved in 1987. This increase is due in large part to the increase in fuel economy

standards for light trucks and SUVs implemented in 2005, offset in part by the increasing popularity of less fuel-efficient light trucks, particularly SUVs. This year, cars and light trucks are each projected to account for 50 percent of vehicle sales. While fuel economy levels have been relatively constant, vehicle performance (e.g. acceleration) and weight have nonetheless increased. Recent technology developments, such as hybrid-electric vehicles, clean diesel technology and variable displacement engines hold promise for the near-term future.

34. NAFTA Environment Ministers Adopt Wide-Ranging Five-Year Plan

Environment ministers representing the United States, Canada, and Mexico have adopted a five-year plan to improve environmental decision-making, strengthen environmental management, and address trade and environmental issues.

The specific goals and objectives outlined in the Strategic Plan 2005-2010 build on the strengths and unique nature of the Commission for Environmental Cooperation, the ministers said in a statement issued June 22 at the conclusion of a meeting of the governing council of the trilateral CEC, which was established under the North American Free Trade Agreement.

"It describes how we intend to work together to protect the environment in North America, to promote and facilitate cooperation among our three countries, and to provide tools and information to enable citizens, governments, and industry alike to protect our shared environment," the statement said.

Attending the June 22 meeting were U.S. Environmental Protection Agency Administrator Stephen Johnson, Canadian Environment Minister Stephane Dion, and Jose Manuel Bulas, director of international affairs with the Mexican Environment Ministry (SEMARNAT). The officials also met with representatives of the U.S. Council for International Business, Canadian Chamber of Commerce, and Mexican Confederacion de Camaras Industriales.

"The council has reached an agreement to work to increase the contribution of the private sector and other stakeholders in Canada, Mexico, and the United States in the implementation of the initiatives we have endorsed to accomplish our strategic goals," they said.

The strategic plan details how the three countries plan to address the three priorities identified in the June 2004 Puebla Declaration as crucial to promoting environmental cooperation within North America.

Specific areas identified for initiatives include:

- Information for decision-making: development of an information systems strategy that includes a quality assurance framework; development of an online North American environmental atlas; improvements to monitoring information on persistent toxic substances; and periodic publication of state of the environment reports and indicators.

- Capacity building: formulation by the Mexican government of its environmental management capacity needs and priorities; training of Mexican wildlife enforcement officers; and promotion of better environmental management in selected Mexican industries and regions.
- Trade and the environment: continued documentation of the environmental effects of trade liberalization in North America; promotion of renewable energy markets and markets for "green" products and services; promotion and facilitation of training, compliance assistance, and enforcement to expedite the movement of legal materials and block shipments of illegal materials that pose an environmental threat; development of guidelines for risk assessments of invasive alien species; and promotion of increased use of market-based approaches to support environmental protection, conservation, and biodiversity.

Meanwhile, environmental protection was also a factor in the June 27 meeting of senior U.S., Canadian, and Mexican officials that led to a series of initiatives to promote closer security, economic, and social ties among the three countries.

The series of initiatives to implement the Security and Prosperity Partnership agreement reached March 23, 2005, among President Bush, Canadian Prime Minister Paul Martin, and Mexican President Vicente Fox includes a number of measures intended to improve environmental protection across North America. These include:

- increased domestic supply of low-sulfur fuels in Mexico through significant investments by Mexico, supported by technical assistance and capacity-building support from the United States and Canada;
- efforts to address air pollution from ships through coordinated data collection and development of a marine emissions inventory;
- conduct of a joint Canada-US. review of the Great Lakes Water Quality Agreement;
- promotion of ballast water management strategies to combat invasive alien species; and
- efforts to conclude, by 2007, development of a Transboundary environmental impact assessment cooperation agreement for proposed major projects.

35. Ontario Delays Phase-out of Coal-Fired Power Plants

On June 15th, Ontario Natural Resources Minister Dwight Duncan confirmed that the provincial government will delay until 2009 the complete phase-out of coal-fired power plants. The last of four remaining coal-fired generating plants, the Nanticoke Generating Station, will close in early 2009, two years later than the original target date of 2007, Duncan said in a statement. The delay is necessary to provide enough time to bring alternate generating sources online, he said.

Even with the delay, Ontario will still be the first jurisdiction in North America to put the environment and health of its citizens first by saying "no" to coal use in electricity generation, he said. "As we have said all along, maintaining reliability is the first principle of our plan. It's a prudent and responsible path that will ensure cleaner air for the province," he said.

Provincial Environment Minister Leona Dombrowsky said June 15 that the plan to phase out coal-fired generation will reduce greenhouse gas emissions by up to 30 megaton's per year below current levels, the equivalent of taking nearly seven million automobiles off the road.

"The closure of Ontario's coal-fired generating stations is expected to provide up to half of the province's greenhouse gas reduction contributions under the Kyoto Protocol," Dombrowsky said. Under the treaty, Canada is committed to reducing overall greenhouse gas emissions by 6 percent from 1990 levels by the period 2008-2012.

The updated coal generation phase-out plan calls for:

- replacement of the 310-megawatt Thunder Bay Generating Station in 2007 with natural gas-fired generation;
- closure of the 215-megawatt Atikokan Generating Station by the end of 2007 with no direct replacement necessary due to planned upgrades to generating units in Thunder Bay, Ontario;
- replacement of the 1,975-megawatt Lambton Generating Station with two combined-cycle, gas-fired generating stations; and
- closure of the 3,938-megawatt Nanticoke Generating Station in early 2009, with transmission upgrades in southwestern Ontario and new generation capacity replacing its output.

In April the province closed the 1,140-megawatt Lakeview Generating Station in urban Toronto after completing a number of projects to strengthen the overall electricity transmission system in the Toronto area. Duncan stressed that the provincial government's plan to replace coal-fired generation is based on approval of a series of projects to provide more than 7,500 megawatts of cleaner, more diversified electricity generation.

The government is also reviewing a tentative agreement with Bruce Power for the refurbishment of two previously suspended nuclear reactors that would provide more than 1,500 megawatts of additional capacity, he said.

36. Canada Environmental Officials Reach Draft Mercury Agreement

On June 27th, Canada's federal, provincial, and territorial environment ministers accepted in principle a draft Canada-wide standard to reduce mercury emissions from coal-fired power plants by 58 percent from 2003-2004 levels by 2010.

At the same time, the ministers released a draft statement on environmental sustainability aimed at improving standards and cooperation generally, according to statements following a meeting of the Canadian Council of Ministers of the Environment in Halifax, Nova Scotia.

The mercury standard will be subject to public consultations before it can be presented for final adoption at a scheduled meeting of the council in fall 2005. The 58-percent reduction includes credit for emissions reductions already made from 2003-2004 levels.

The standard calls for provincially enforced caps on mercury emissions from existing coal-fired plants to provide a 65-percent national rate on capture of mercury from coal burned, and the setting of capture rates or emissions limits for new plants, it said.

"The goal [is] reducing mercury emissions from existing plants and ensuring new plants achieve emission levels based on best available technologies economically achievable, or equivalent," it said. "A possible second phase of the Canada-wide standard may explore the capture of 80 percent or more of mercury from coal burned for 2018 and beyond."

According to the government, provinces with existing coal-fired plants--Alberta, Saskatchewan, Manitoba, Ontario, New Brunswick, and Nova Scotia--currently emit a total of 2,695 kilograms (5,929 pounds) of mercury per year. The proposed provincial caps would limit emissions to 1,130 kilograms (2,486 pounds) per year by 2010.

The draft statement on sustainability called on all levels of government to "increase their efficiency and effectiveness by recognizing each other's jurisdictions, by collaborating to achieve shared outcomes, and streamlining approaches for Canadians."

The statement, which is expected to receive final approval at the council's fall meeting, calls for:

- implementation of streamlined, single-window, and single-process regulatory approaches that ensure compliance and enforcement by the best-placed jurisdiction and clearly defined roles and responsibilities for each jurisdiction;
- development of nationally consistent environmental targets;
- a systems approach to environmental management;
- continued development of consistent strategies on emerging environmental issues;
- development of bilateral and/or multilateral agreements to promote environmental cooperation;
- establishing a national science agenda based on the shared priorities needed to support sound environmental decision making;
- increased investment in the development and implementation of environmental technologies;
- enhanced public awareness and participation on environmental issues; and
- improved sharing of environment-related information.

37. Mexico Preparing Emissions Limits, Proposes Fuel-Sulfur Standards

Mexico's Environment Ministry (SEMARNAT) announced on August 1 that the government would soon publish a revised emission standard for new light vehicles as part of a wider campaign to improve air quality. Environment Minister José Luege told reporters that the ministry had also issued for public comment a draft standard that would lower sulfur content requirements in fuel.

"The aim is to regulate lower levels of sulfur in gasoline and diesel so that fuels consumed in the national territory are at the same levels of (sulfur) content as international levels," Luege said.

José Ardavín, deputy minister for environmental regulation, said the revised standard for new vehicles--Official Mexican Norm 042 that covers cars and light trucks--would require manufactures to prove that new vehicles can maintain emission standards for the first 80,000 kilometers (49,700 miles).

Ardavín noted that to meet the standard required using lower-sulfur fuel, which would not be widely available until at least 2008.

Luege said state-owned oil company Petróleos Mexicanos (PEMEX) would have to invest US \$2.8 billion in its refineries to meet the fuel standards in the draft of Official Mexican Norm 086. PEMEX also faces heavy investment requirements in the coming years to replace declining reserves and improve failing pipeline infrastructure that has caused a string of accidents.

Other regulations under revision for motorcycle and heavy truck and bus emissions will also necessitate lower-sulfur fuels.

Pemex's "Premium" brand gasoline currently has sulfur content levels between 250 and 300 parts per million while "Magna" brand gasoline has levels up to 1,000 ppm. Under the draft standard, Premium gasoline will have to meet sulfur levels of between 30 and 80 ppm by 2006, and Magna gasoline will have to meet the same levels by September 2008.

For diesel, PEMEX will have to reduce sulfur levels from the current 500 ppm to 300 ppm by 2006 and to 15 ppm by 2008.

Adrián Fernández, president of the government's National Ecology Institute (INE), said the standards would cut pollution levels in Mexico's major cities by 50 percent within 10 years. Fernández said the eventual effect of both standards also would reduce carbon monoxide and nitrogen oxide emissions as well as the formation of particulate matter, insuring lower levels of respiratory illness in Mexico's cities.

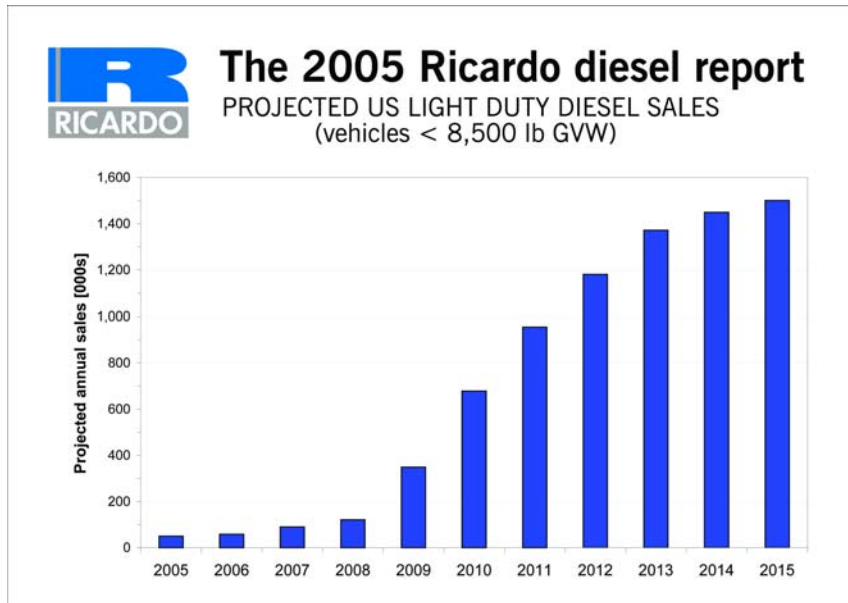
According to a study by Mexico's 1995 Nobel chemistry-prize winner, Mario Molina, capital dwellers lose 2.5 million working days every year due to health problems caused by particle matter such as soot.

Currently, Pemex's pricier Premium fuel has sulfur content of between 250 and 300 ppm while Magna has a sulfur content of 1,000 ppm. The company also will have to lower the sulfur content in its diesel fuel, to 15 ppm by 2008, from 500 ppm now.

Sales of both gasoline and cars in Mexico have risen sharply in recent months, spurred by economic growth and consumer spending. According to PEMEX data, gasoline consumption in Mexico rose 28% during the first six months of the year over the same period of 2004, with PEMEX averaging nationwide sales of 657,800 barrels a day. Mexico's auto industry association, meanwhile, reports that Mexicans purchased 527,511 new vehicles during the same period, or 3.5% more than in the first half of 2004.

38. Ricardo Report Predicts Vastly Expanded US Light Duty Diesel Market

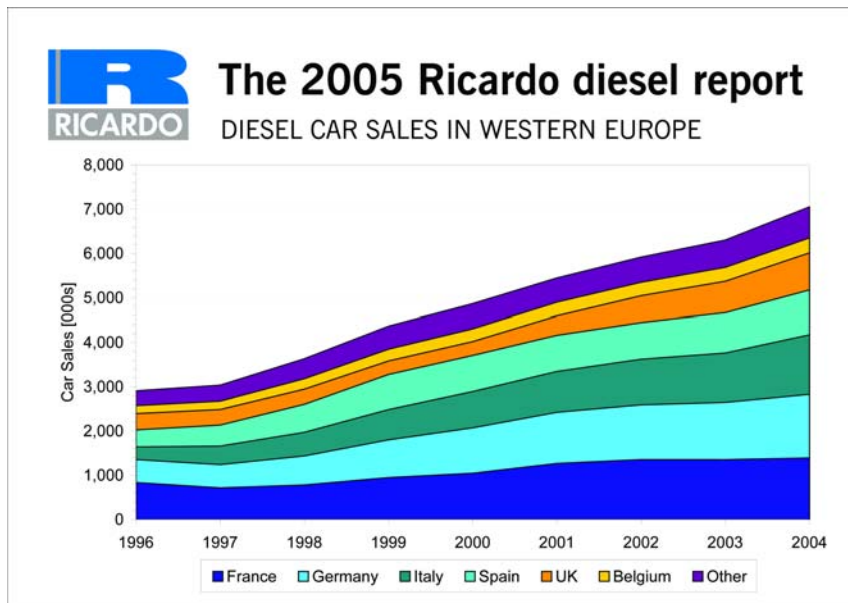
The 2005 Ricardo diesel report predicts a significant rise in US light duty diesel market penetration over the coming decade. Sales in the light duty vehicle segment (up to 8,500



pounds gross vehicle weight) are projected to grow from 43,000 units in 2004, to exceed 1 million units annually by 2012, rising to 1.5 million by 2015. In examining the US market, the Ricardo research team has incorporated an in-depth analysis of current market trends together with an assessment of future consumer tastes, legislative fuel quality and

emissions standards, and the probable commercial implementation of new and emerging technologies. While diesel already enjoys a market penetration of over 56% in the US premium light truck sector (between 3/4 and 1 ton capacity) cost remains a major issue for passenger cars, light trucks and SUVs. Significant efforts are currently underway by Ricardo and others to reduce engine-out emissions as well as in the development of more effective aftertreatment devices. With the implementation timing of practical and cost-effective solutions likely to be one of the principal drivers for further diesel

penetration, Ricardo predicts that a rapid increase in diesel sales will follow as such devices become both readily available and affordable to the consumer from 2009 onwards.



Elsewhere, the global growth of light duty diesel sales continues apace, with 2004 posting the largest volume increase for a decade. The sales

ratio of diesel to gasoline vehicles for the larger manufacturers continues to grow, led by

Volkswagen which now reports over 60% of its car sales as diesels. In Western Europe, diesel car sales in 2004 continued to flourish in all of the major national markets, with overall penetration reaching a record level of over 48% and with no immediate sign of a slow down. In the context of a marginally strengthening passenger car market in Western Europe compared with that of 2003, a 5.4% decrease in gasoline sales was more than offset by an 11.9% increase in diesel sales.

39. Another Study Says US Diesel Demand to Reach \$16.3 Billion in 2009

US demand for diesel engines and related aftermarket parts is forecast to increase 4.2 percent annually through 2009 to \$16.3 billion, according to "Diesel Engines," a new study from The Freedonia Group, Inc., a Cleveland-based industrial market research firm.

Although motor vehicle diesel engines will still comprise the largest product segment in 2009, off-highway diesel engines will grow faster, spurred in large part by renewed growth in such large markets as construction and agricultural equipment, both of which have a high degree of diesel engine penetration. The fastest-growing off-highway markets will be marine equipment and electric power generation, supported by heightened boat building and shipbuilding activity, as well as by rising interest in off-grid electric power sources.

Heavy-duty trucks will remain the largest motor vehicle market for diesel engines, despite projected declines in heavy-duty truck production through 2009. Light-duty trucks will continue to be the second-largest motor vehicle market and experience the most rapid growth, with the other motor vehicle market -- which includes specialty vehicles -- posting the second-largest gains. Additionally, technological innovations, many of which will be prompted by federally mandated emissions control regulations, will spur demand for cleaner-burning diesel engines and components at both the OEM and aftermarket levels in the motor vehicle and off-highway segments.

40. Emissions From U.S. Cars Jump 25 Percent In 13 Years, ED Reports

U.S. emissions of carbon dioxide from cars and light trucks jumped 25 percent between 1990 and 2003, with the rising sales of sport utility vehicles accounting for much of the increase, according to a report released Aug. 10 by Environmental Defense (ED)¹; they concluded that carbon dioxide emissions from cars and light trucks in the United States topped 317 million metric tons in 2003.

The report, updated from 2002, analyzed the carbon dioxide emitted by the new vehicles sold each year by major auto manufacturers. The carbon burden is the total carbon dioxide emitted by a group of vehicles each year and represents their lifetime average global warming impact.

¹ Automakers' Corporate Carbon Burden

Among the six largest automakers, which account for 87 percent of the U.S. car market, Nissan's new fleet-average lifetime carbon dioxide lifetime emissions showed the most growth between 1990 and 2003, up 8.4 percent to 4.87 tons per vehicle, or 1 million tons in 2003. Ford was second, with emissions advancing 7.7 percent to 5.56 tons per vehicle, or 5 million tons in 2003. General Motors, with the largest market share, also had the largest carbon dioxide emissions at 6.4 million tons per year for 2003 model-year vehicles. The per-vehicle emissions rate in 2003 was 5.37 tons per year, a 6.3 percent increase.

Of the six largest automakers, Toyota had the smallest increase in emissions per vehicle over the 13-year period, with emission rising 2.9 percent to 4.56 tons per car. Toyota's average light truck fuel economy was the same in 2003 as it was in 1990 despite an expansion of the company's lineup into SUVs and larger, more powerful trucks, the report said. At the same time, the report said, fleet-average lifetime carbon dioxide emissions of BMW vehicles declined 12.7 percent between 1990 and 2003 to 4.89 tons per vehicle, while seeing a fivefold increase in U.S. sales. Volkswagen cut its vehicles' lifetime carbon emissions by 3.3 percent to 4.3 tons per vehicle while doubling sales, the report said.

Led by SUVs, light trucks grew from 17 percent of the U.S. automobile market to more than 50 percent in 2003, the report said. While automakers are required to achieve 27.5 mpg CAFE standard, light trucks and SUVs were required to achieve 20.5 to 20.7 miles per gallon during the 1990-2003 model years, the report said.

41. US Proposes to Boost Light-Truck Fuel Economy; Attacks CARB Rule

US auto regulators have proposed new standards that would improve gas mileage for popular sport utility vehicles and other light trucks in an effort to cut consumption and save consumers money.

Passenger cars, which were not included in the new proposal, must get an average of 27.5 miles per gallon.

The centerpiece of NHTSA's proposal would be to drop the formula for calculating fuel economy that averages performance over an automaker's entire light truck fleet, establishing in its place six categories requiring different fuel standards based on vehicle size.

This plan could hurt foreign manufacturers who have historically offered a broader range of models than their US rivals to more easily comply with fuel mileage requirements. But NHTSA is giving automakers the choice of the new formula or the current one to reach its fuel targets between model years 2008 and 2010. All manufacturers would have to abide by the new formula in 2011.

Using the current formula, light vehicles would have to achieve 22.5 mpg in model year 2008 -- which begins in early 2007 -- 23.1 mpg in 2009 and 23.5 mpg 2010.

Under the new calculation, small light vehicles would have to achieve 26.8 mpg in model year 2008 compared to 20.4 for the large models. By 2011, small vehicles would have to get 28.4 mpg compared to 21.3 mpg for the bigger ones.

The government does not plan to require the largest light trucks -- the Hummer H2, Ford Excursion and other models that weigh between 8,500 and 10,000 pounds -- to meet fuel economy standards, allegedly because there are few on the market.

US Transportation Secretary Norman Mineta said the new formula would nearly double fuel savings to 10 billion gallons of gasoline over the period and maintain the administration's determination to lessen US dependence on foreign oil. But environmental, consumer and other advocacy groups were sharply critical saying the standard should at least seek a 1 mpg increase per year.

Administration officials hope to finalize the new regulation next April after consulting manufacturers, consumers and environmentalists over the next 90 days.

There were 8 million light trucks registered in the United States in 2004. Nearly 60 percent of all new vehicles purchased last year were light trucks, industry estimates show.

US retail pump prices hit record \$2.61 over the last week, up 73 cents from a year ago, according to US government data released on Monday. It can cost more than \$50 to fill up some large sport utilities.

The secretary said the proposal would lower gas bills for sport utility vehicles like the Navigator and other trucks and would save \$800 million to \$1.3 billion over nearly two decades when the higher upfront costs for more efficient vehicles are included. The administration projects 10 billion gallons of gas savings over nearly two decades, about what is consumed in 25 days. Critics, however, see the new system as potentially ripe for exploitation, because automakers have shown they can be extremely creative in shifting between lines in the sand drawn by the government. When the current regulatory system was created three decades ago, 80 percent of the vehicles automakers produced were cars. Today, more than half are light trucks, partly a result of the category's lesser fuel requirements. More categories as proposed in the rule could open more doors for manipulation. For instance, Ford could add less than an inch to the dimensions of its Explorer Sport Trac and move it from a class with a fuel target of 24.5 m.p.g. to one with 23.3 in 2011 models.

A. Going After California's Rule

But the plan conflicts with air quality rules passed by California. The administration supports legal efforts by automakers to turn back the rules, which sharply curb tailpipe emissions of global-warming gases. California's rules, however, would save far more at the pump for the state's residents than the White House plan. That would also be the case in states in the Northeast and Northwest that follow, or plan to follow, California's car rules. For California alone, the state projects annual net gas savings of more than \$1 billion by early next decade.

How much the new Administration proposal would actually increase efficiency is hard to say because of the plan's structure, which could encourage production of larger, less fuel-efficient vehicles. By contrast, California's emissions regulation would effectively force automakers to have a combined fuel economy for cars and trucks of about 33

m.p.g. by the 2016 model year and save 1.7 billion gallons of gas in California alone in just five years, the state's Air Resources Board projects.

But the California plan is being challenged in court by automakers, and the administration's new fuel economy proposal goes out of its way to say that CARB's rule would interfere with DOT's own regulatory authority.

B. CARB Responds

California Air Resources Board (CARB) Chair Cindy Tuck responded to statements that states do not have the authority to adopt motor vehicle standards that limit greenhouse gas emissions. "NHTSA's preamble statement is not binding on ARB and is simply wrong. Congress gave California broad authority to adopt emission standards for motor vehicles when it passed the original Clean Air Act (CAA) in 1970 and it continued that authorization in the 1990 amendments. It has been understood for years that air quality regulations adopted by California might indirectly affect fuel economy, but the authority was granted nonetheless," said Cindy Tuck, the new CARB Chair.

The CAA gives the state clear authority to adopt motor vehicle standards that limit tailpipe emissions, with the understanding that those standards would likely differ from those adopted nationally. The state has stood firm on its assertion that California's greenhouse gas regulation is not a Corporate Average Fuel Economy (CAFE) standard but a pollution control standard that limits methane, nitrous oxides and hydroflourocarbons (HFCs) as well as carbon dioxide.

"Our Greenhouse Gas regulation is the centerpiece of Governor Schwarzenegger's work to reduce greenhouse gas emissions," Tuck said. "We will vigorously defend this regulation against unwarranted and misguided attacks."

42. Western States On Verge of Adopting California Greenhouse Standards

Two Pacific Northwest States -- Oregon and Washington -- are getting ready to adopt California's new vehicle emission standards to reduce greenhouse gases. When that happens, California's emissions standards will be in effect along the entire West Coast from Canada to Mexico. By 2016, all new cars, SUVs and light trucks sold in the West Coast states would have to comply with the tougher standards on emissions of greenhouse gases.

In addition, at least six states in the Northeast -- New York, Connecticut, New Jersey, Massachusetts, Vermont and Maine, are also moving to adopt California's new tailpipe standards to reduce greenhouse gas emissions from cars. A seventh state, Rhode Island, is considering whether to adopt the new California rules or revert to less restrictive federal standards. Most northeastern states have followed California vehicle emission rules for years.

It's an environmental squeeze play -- with states on the two coasts working to try to force the auto industry to turn out cleaner, more fuel efficient cars, since those states comprise nearly a third of the U.S. car market.

This year, the auto industry has fought to try to prevent the entire West Coast from becoming what environmentalists call a "clean car corridor." Washington state lawmakers voted to bring the strict California car-emissions standards to their state. However, as part of a compromise, lawmakers made their bill contingent on Oregon adopting the same standards. Seeing an opportunity to kill the regulations in both states, auto industry lobbyists persuaded Oregon legislators to insert language into a state environmental agency budget forbidding the state from spending money to adopt or enforce California-style emission rules.

But Oregon Gov. Ted Kulongoski says he will use his veto authority to delete that provision from the budget. That will clear the way for the Oregon Environmental Quality Commission to adopt the new tailpipe emission rules for Oregon by the end of the year. Kulongoski has said he would pursue the stricter standards following recommendations of his global warming advisory committee. A December 2004 report found California's stricter standards, beginning with the 2009 model year, would cut greenhouse gas emissions from passenger cars and light-duty trucks 18 percent by 2020 and 28 percent by 2030.

Auto industry lobbyists say importing California's emissions standards to Oregon would limit consumer choices and potentially add \$3,000 to the cost of a new car. Those who support adopting California emissions standards say the added cost would be much lower than \$3,000, and that consumers would recoup their costs through fuel savings.

43. Vehicles Identified As Major Source of Toxic Metals in Puget Sound

Mud and sand at the bottom of Puget Sound is increasingly tainted by pollution from vehicle exhaust, not heavy industry, a state Department of Ecology study says. The research, which compiled 12 years of sediment test results, showed that toxic metals associated with industrial pollution declined while chemicals tied to vehicle exhaust increased.

Researchers said pollutants such as polycyclic aromatic hydrocarbons, or PAHs, typically fall directly into the water from airborne exhaust or are washed into the sound by rainfall. Those chemicals can cause liver lesions and tumors in fish, and can change the growth rates and behavior of sediment-dwelling invertebrates.

The Ecology Department analyzed test results from 1989 through 2000. Sediments were gathered at 10 sites stretching from Bellingham to the Olympia area.

44. International Tribunal Upholds States' Right To Ban MTBE

In a closely watched international trade dispute, a North American free trade tribunal has upheld the right of states to ban MTBE in gasoline, even if it affects North American Free Trade Agreement (NAFTA) methanol imports. The tribunal ruled the Canadian company Methanex had no standing in bringing the case but also noted that Methanex would have failed on the merits of its argument -- which was based on the premise that the California MTBE ban amounted to a de facto expropriation of the Canadian company's business.

If Methanex had won, the U.S. government would have had to pay Methanex \$1 billion and \$12 million in attorney fees. This would have given pause to any federal, state or local government seeking to enact laws to protect the environment if the law would adversely affect the business of a foreign firm with which the country had a trade agreement with, such as NAFTA.

The federal government is the signatory to NAFTA and cases are brought against it. A Methanex win could have meant a government entity passing laws to protect the environment could be subject to claims from foreign companies seeking compensation for lost business. Methanex argued California's MTBE ban constituted an illegal taking of their business.

NAFTA Chapter 11 set up an arbitration system under which private investors could challenge NAFTA governments--the United States, Canada, or Mexico--for cash compensation for government actions interfering with NAFTA obligations. Chapter 11 guarantees freedom from uncompensated expropriation or government action tantamount to an "indirect expropriation." The chapter has been widely criticized by environmental and consumer groups for what they say is an infringement on national sovereignty.

In March 1999, California decided to phase out use of MTBE, banning the fuel additive because of concerns about groundwater contamination and switching to ethanol as its oxygenate additive in reformulated gasoline. Methanex Corporation, a Canadian marketer and distributor of methanol, submitted a claim to arbitration under the UNCITRAL rules on its own behalf for alleged injuries resulting from the ban. Methanol is an ingredient used to manufacture MTBE.

Methanex contended that a California Executive Order and the regulations banning MTBE expropriated parts of its investments in the United States in violation of Article 1110, denied it fair and equitable treatment in accordance with international law in violation of Article 1105, and denied it national treatment in violation of Article 1102. Methanex claimed damages of \$970 million.

A hearing on jurisdiction and admissibility was held in July 2001. On August 7, 2002, the Tribunal issued a First Partial Award on issues of jurisdiction and admissibility. A hearing on the merits was held in June 2004.

On August 9, 2005, the Tribunal released the Final Award, dismissing all of the claims. The Tribunal also ordered Methanex to pay the United States' legal fees and arbitral expenses in the amount of approximately \$ 4 million.

45. California Adopts OBD Requirements For Heavy-Duty Engines

The California Air Resources Board (ARB) has adopted a regulation that reduces nitrogen oxide emissions from on-road heavy-duty trucks and buses by nearly 110 tons per day by 2020. The regulation requires engine manufacturers to install on-board diagnostic systems (OBD) on heavy duty engines beginning in 2010.

"We expect this rule to lead to lower emissions due to more durable equipment on big rigs and faster repairs on damaged or broken emission control equipment," said Cindy Tuck, ARB Chair. "Easier diagnosis will also cut costs for vehicle owners."

The new rule, set for introduction in 2010, with full compliance by 2016, will monitor 120 different engine locations that can leak emissions when they age or break down. The new OBD regulation requires heavy-duty diesel and gasoline powered truck and bus manufacturers to equip those vehicles with a system of sensors that can monitor the performance of engine parts that may affect emissions. The monitors are designed to alert vehicle operators that part of the pollution control system is failing and emissions are likely to increase unless the part is repaired or replaced.

When an emissions control component begins to fail the driver is alerted immediately by a dashboard indicator light. An access port under the dash allows a mechanic with a handheld computer to obtain detailed information about the vehicle's performance and directs him to the failing equipment, so repairs can be made before the part fails completely.

The program is similar to one in operation on light and medium duty vehicles since 1996 in California. Today, more than 120 million cars, SUVs and light and medium size trucks nationwide are equipped with OBD.

46. Nine States Planning to Cut Power Plant Greenhouse Gas Emissions

Officials in New York and eight other Northeastern states have come to a preliminary agreement to freeze power plant greenhouse gas emissions at their current levels and then reduce them by 10 percent by 2020, according to a press reports. Once a final agreement is reached, the legislatures of the nine states will have to enact it, which is considered likely.

The regional initiative would set up a market-driven system to control emissions of carbon dioxide, the main greenhouse gas, from more than 600 electric generators in the nine states. The nine states in the Northeastern agreement are Connecticut, Delaware, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island and Vermont. They were brought together in 2003 by a Republican governor, George E. Pataki of New York, who broke sharply and openly with the Bush administration over the handling of greenhouse gases and Washington's refusal to join more than 150 countries in signing the Kyoto Protocols, the agreement to reduce emissions that went into effect earlier this year.

California, Washington and Oregon are in the early stages of exploring a regional agreement similar to the Northeastern plan.

In a statement, James L. Connaughton, chairman of the White House Council on Environmental Quality, tried to put the states' initiative in a positive light. "We welcome all efforts to help meet the president's goal for significantly reducing greenhouse gas intensity by investing in new, more efficient technologies," he said.

As outlined in the draft, the regional carbon dioxide control plan would set specific caps on emissions that would drop over time.

Emissions would be capped at 150 million tons of carbon dioxide a year, a figure that is about equal to the average emissions in the highest three years between 2000 and 2004. Each of the nine states would have its own cap. New York's, at 65.6 million tons, would be the largest. Vermont's would be the smallest, with 1.35 million tons.

The caps would be enforced starting in 2009. By that time, restricting emissions to levels prevailing now would, in effect, require a reduction of emissions relative to power output, because electric generation is expected to increase between now and then. The 150 million-ton cap would be sustained through 2015, when reductions would be required, reaching 10 percent in 2020. The Kyoto protocol freezes emissions at the 1990 level and imposes a 7 percent reduction in 2012.

One part of the proposal that is not yet final deals with the sale of emission allowances under a cap-and-trade system. Such systems allow generating companies that have not used all of their emission quotas to sell the right to emit more pollution to competitors. In this way, the total amount of pollution can be controlled, while the economic viability of the companies is protected. When this system was used in Europe, the carbon dioxide allowances were given to the generating companies. The Northeastern states are considering withholding some allowances and selling them to the generating companies.

ASIA PACIFIC

47. Singapore Adopts Ultra Low Sulphur Diesel

To pave the way for Singapore to adopt the Euro IV emission standards for diesel vehicles in October 2006, the National Environment Agency (NEA) has decided to mandate the use of ultra low sulphur diesel (ULSD) from 1 December 2005. ULSD is a new grade of diesel with only 0.005 per cent sulphur content. This is one-tenth of the sulphur content present in the diesel currently sold in Singapore.

Replacing the current grade of diesel with ULSD will help to further improve Singapore's air quality. Although Singapore's air quality is good, the growing level of PM2.5 is of potential concern. PM2.5 is linked to health problems such as asthma and other respiratory diseases. Diesel vehicles, which make up 20 per cent of Singapore's vehicular population, are a major source of PM2.5 emissions. They contribute about 50% of total PM2.5 emissions in Singapore.

Last year, the average PM2.5 level was 21 ug/m³, exceeding the internationally accepted standard of 15 ug/m³ set by the US Environmental Protection Agency (USEPA).

Said NEA's Director-General, Environmental Protection, Mr. Loh Ah Tuan, 'It has been estimated that PM2.5 emissions from Euro IV diesel vehicles are 70 per cent lower than those from existing Euro II vehicles. With the number of vehicles on the road rising, there is a need for more stringent emission standards so that Singapore's ambient air quality can be maintained.'

In preparation for this change, NEA has conducted several dialogues with relevant government agencies and industry players including oil companies and motor associations. Said Mr. Loh, 'Their feedback on our intended move has been encouraging. We will continue with these dialogues and work closely with the relevant parties to monitor the progress of this change.'

'Today's announcement will give everyone affected ample time to adapt, in particular, oil companies who will have to replace Euro II diesel with ULSD at all service stations,' he added.

To encourage diesel vehicle owners to switch to Euro IV compliant vehicles, the Government introduced a special incentive package in March 04 when it announced the decision to adopt the Euro IV emission standards. Details of the package can be found below.

Tax Incentives for Euro IV Diesel Vehicles for 2004 - 2006

Date of Registration	1 June 2004 to 31 December 2005	1 Jan 2006 to 30 Sept 2006
Euro IV Diesel Taxis	ARF Rebate of 100% OMV	ARF Rebate of 80% OMV
Euro IV Diesel Buses	ARF Exempt	ARF Exempt
Euro IV Commercial Vehicles	ARF Exempt	ARF Exempt

48. China, Hong Kong to Cooperate on Air Pollution

On May 26th, China and Hong Kong signed an agreement under which Beijing and the "Special Administrative Region" pledged to cooperate in fighting and monitoring air pollution in the heavily industrialized Pearl River Delta region. China's State Environmental Protection Administration and Hong Kong's Environment Protection Department have cooperated in some areas in the past but the new agreement steps up and formalizes that cooperation, K.K. Kwok, Hong Kong's permanent secretary for the environment, said in a statement. Specific measures called for in the agreement include: a standard set of guidelines for measuring and reporting air pollution; joint efforts to standardize vehicle emissions standards; efforts to develop alternative fuels and fuel monitoring; efforts to build environmental databases; and further development of emissions trading programs. Hong Kong previously had a cooperative agreement with the mainland's neighboring Guangdong Province. Hong Kong and Beijing expect to hold a meeting on fuels and vehicle pollution later this year.

Despite spending more than HK \$1 billion to reduce diesel emissions, a Legislative Council committee said the government has failed to improve air quality. A detailed report by the Public Accounts Committee said: "The committee is gravely dissatisfied that, although, about HK \$1.2 billion has been spent so far on implementing the measures outlined in the 1999 policy address to reduce vehicle emissions, the air quality in Hong Kong has not improved."

In 1999, then-Chief Executive Tung Chee-Hwa announced to Legco that the government would allocate HK \$1.4 billion to help combat emissions from diesel vehicles. To date, HK \$1.2 billion has been spent on retrofitting liquefied petroleum gas (LPG) taxis, pre-

Euro diesel light vehicles, non-long-idling pre-Euro diesel heavy vehicles and electric light buses. The remaining HK \$200 million will be spent on modifying long-idling diesel heavy vehicles and LPG light buses by the end of the year. There are 18,138 taxis and more than 5,500 buses in Hong Kong.

Tung stipulated that, by 2005, he wanted to cut respirable suspended particulate (RSP) emissions from diesel vehicles by 80 percent and nitrogen dioxide emissions by 30 percent. Six years later, this goal has been met. The report found that, at the end of 2004, RSPs had been reduced by 79 percent and nitrogen dioxides by 39 percent in urban areas.

However, the former chief executive also announced that, by cutting these pollutants, air quality would improve and would be comparable to that in London or New York City. The respiratory health of citizens would also be substantially improved, said Tung. But committee chairman Philip Wong said this has not occurred. "When the administration sought funding approvals for implementing the measures, it had not informed the Legislative Council that the reduction in vehicle emissions might not bring about an improvement in the air quality," Wong said.

In order to reduce emissions, the government introduced an ultra-low sulfur diesel. All diesel-vehicle owners were also required to retrofit their vehicles with a device that would reduce RSPs. The report stated that the program was successful at "achieving the target to reduce vehicle emissions."

But, according to Environment, Transport and Works Secretary Sarah Liao, cutting diesel emissions was not enough to improve air quality. "Diesel vehicles were only one of the sources of air pollution," she said in the report to the committee. "Other major sources of pollution came from pollutants generated by industrial and commercial operations and power plants in Hong Kong and in the region."

Wong said the program also has to focus on private vehicles, as there are 517,000 private cars in Hong Kong. "The government should look more at cars as pollution makers," he said.

Wong said one of the problems may have been the fact that the RSP-eliminating devices were placed in vehicles by their owners. In future, this will be carried out by specially designated agents.

On the brighter side, Wong said the money spent was not a total waste. Pointing out that there has been a reduction in diesel emissions, he added: "If we didn't spend that sum of money, we would have even worse air quality."

49. New Zealand's Greenhouse Gas Projections Increase

On June 16th, New Zealand released updated forecasts for greenhouse gas emissions which project for the first time that the country's emissions may exceed its Kyoto Protocol targets for the first commitment period, 2008-2012. The forecasts are contained in the Annual Report on Climate Change Policy Implementation 2004/2005, which was prepared for the Cabinet by the Office of the Convener of the Ministerial Group on

Climate Change, the group of government ministers most closely associated with climate change policies.

The report predicts New Zealand's greenhouse gas emissions over the period will surpass the country's Kyoto target by 12 percent unless further action is taken. Previous forecasts estimated the country would be 11 percent under the target.

Under the Kyoto Protocol, New Zealand is not to exceed 1990 GHG emission levels over the 2008-2012 period. In 1990, the country emitted 61.6 megaton's of carbon-dioxide-equivalent, meaning that its Kyoto target is to stay below 308 Mt CO₂e over the five-year period.

New Zealand's emissions profile is quite different from most other "Annex I" parties (industrialized nations) to the treaty due to the large share of agriculture in its economy. The agricultural sector accounts for around half of New Zealand's total GHG emissions, mainly in the form of methane and nitrous oxide.

The revision in the latest forecast reflects the projected growth in emissions due to expected increases in power generation and transport as well as some loss of forest sinks. The change reflects a rise in projected transportation emissions equal to 38 Mt CO₂e between 2008 and 2012, the single largest factor.

The second largest factor is a projected reduction of 19.8 Mt CO₂e of allowable forest sinks. Many of New Zealand's "Kyoto forests" were planted on land that was scrub in 1990. Changes to the way scrub is accounted for under Kyoto rules have cut the amount of allowable forest sink offsets. Also, new information has brought down previous estimates of the volume of post-1990 forest plantings.

The government has asked officials to present by the end of October proposals for further emissions reduction measures, such as the use of the Clean Development Mechanism and trading options.

The government also said that the emissions reassessment would not lead to changes to the carbon tax of NZ \$15 (US \$11) per ton of CO₂e announced in May.

50. New Zealand Officials to Review Greenhouse Gas Policies

On August 8th, the New Zealand government directed officials from a range of departments to carry out a review of national climate change policies and report back to the Cabinet by Oct. 31. The review, announced on the government's climate change Web site, is a response to the recently published revised forecast of the country's greenhouse gas emissions for the Kyoto Protocol's first commitment period of 2008-12.

A team of officials from the Treasury and the ministries for the Environment, Economic Development, Agriculture & Forestry, and Transport will carry out the review, according to the New Zealand Climate Change Office. The review team will investigate how New Zealand should respond to the forecast shortfall in emission reductions. It will also reassess New Zealand's current high-level climate change goal of reducing emissions towards a "permanent downward path by 2012," the office said.

The review team is expected to present the government with strategic choices about the direction and emphasis of New Zealand's climate change goals and policies in relation to the first commitment period and beyond.

Some of the main issues the government wants examined are:

- the mix of policies New Zealand should adopt to meet its Kyoto obligations;
- the implications of adopting alternative or additional climate change policies for other key government priorities, such as sustainable development, economic growth, social inclusion, and labor market participation; and
- the implications of New Zealand's revised emissions projections, and any recommended alternative or additional climate change policies, for prospective negotiations on New Zealand's climate change mitigation obligations beyond 2012.

The review team has been asked to consider two specific questions. First, it must determine the appropriate balance between further domestic climate change mitigation policies and the use of Kyoto flexible mechanisms, such as international emissions trading. The team also is to determine the correct economic agent to undertake decisions about what is an appropriate balance--whether some or all of New Zealand's climate change liabilities should be devolved from the government to businesses and individuals.

The review team has also been directed to make recommendations for the New Zealand negotiating mandate and strategy for the 11th Conference of the Parties to the U.N. Framework Convention on Climate Change and the first Meeting of the Parties under the Kyoto Protocol in November.

51. World Bank Announces Loan To Support Renewable Energy in China

On June 17th, the World Bank announced that its board of directors had approved a loan of US \$87 million to finance a "renewable energy scale-up program" in China aimed at supporting government efforts to make renewable sources more competitive with coal-fired plants. The loan will be supplemented by a US \$40.22 million grant from the Global Environment Facility (GEF), the bank said in a statement. It said this is the largest project of its kind to be supported by the bank and GEF in recent years.

The bank said the project will be carried out in four provinces: Fujian, Jiangsu, Inner Mongolia, and Zhejiang. It will include the financing of a 100 megawatt wind farm on Pingtan Island in Fujian province, and of a 25 MW straw-fired biomass power plant in Jiangsu province. It will also provide funds for other renewable energy projects and to pay for the transfer of some wind and biomass technologies, it said

The bank said it expects the program to induce more than 20 gigawatts in new generating capacity from renewable sources over its lifetime. It estimates that the project will reduce carbon emissions by about 800 million tons; total suspended particulate emissions by more than 800 millions tons, sulfur oxide emissions by more than 30 million tons, and nitrogen oxides emissions by more than 6 million tons. The project is scheduled to run through September 2010.

"The Project will support the implementation of a national policy framework that would legally require a share of electricity supply to be met from renewable resources," said World Bank project manager Nouredine Berrah in a statement.

China passed a renewable energy law in late February requiring grid companies to purchase electricity produced from renewable sources and setting financial incentives for the development of renewable sources. The law goes into effect at the beginning of 2006.

"[The project] will also support cost reduction of equipment to increase the competitiveness of high potential renewable energy technologies over time through improvements to the quality and performance of equipment and strengthening of the capability of the service industries in China so to enable them to respond to the increased market demand," Berrah said.

52. Asia Scrambling to Curb Energy Use

Governments around Asia have implemented short-term energy-saving measures, but analysts say they are likely to have little impact as consumers shielded from high prices or with strong economies keep buying. Following are details of measures reported by Reuters that several Asian countries have taken or will plan to take to save energy.

CHINA

- Aims to quadruple GDP by 2020, while only doubling energy consumption, which will require a massive boost to efficiency.
- Will order 6,000 industrial firms to shut for a week this summer and another 5,800 to give workers days off.
- Ordered larger companies to shift production to off-peak hours and all industrial enterprises could face electricity rationing between mid-July and late August.
- Government buildings, malls, offices, hotels and entertainment venues have also set their air-conditioning dials above 26 degrees Celsius.
- Brought in a color-coded warning system for electricity load in some cities.
- Considering linking a vehicle tax to engine emissions levels, and levying the charge directly on car owners to encourage ownership of more efficient vehicles.
- Will require shopping malls, offices, restaurants and hospitals to be more energy efficient when national standards for energy use by public buildings take effect in July, aiming to reduce the annual energy consumption of public buildings by 50 percent.

JAPAN

- Expects Japan's total energy use to decline to 377 million kilolitres of crude oil equivalent in 2030 from 413 million kilolitres in 2000.
- Expects the share of oil in its energy mix to fall to 45 percent in 2010 from 50 percent of now.
- Launched "Cool Biz" campaign on June 1, encouraging male government officials, including Prime Minister Junichiro Koizumi, to go tie-less this summer to cut air conditioner use.

- Aims to support nuclear power as a long-term policy to reduce reliance on oil as it imports more than 99 percent of its crude oil needs from overseas.
- Urged the public to set air-conditioner temperature at 28 degrees Celsius at office buildings and home.

SOUTH KOREA

- Lifted its budget to support companies which provide fuel-efficient equipments by 29 percent to 127 billion won this year, hoping to save 617,000 tons of oil equivalents (TOE) by 2007.
- Allowed local airliners to operate on several shortcut routes, which were only allowed to military use before, to help the carriers cut jet fuel costs.
- Allowed civil servants to wear casual clothes in work places during summer.
- The nation's major electronic home appliances makers, including Samsung Electronics and LG Electronics, have agreed to improve energy efficiency of their products such as refrigerators, televisions, personal computers, washing machines, air-conditioners and rice cookers by 2.6 percent by 2008, cutting the country's electricity use by 0.25 percent.
- Pledged to cooperate with civic groups to promote various energy-conservation campaigns, under which they urge the public to use more cooling fans than air conditioners in summer and switch to bicycles from cars.

THAILAND

- Set a medium-term plan target to cut back its energy consumption by 20 percent by 2009, which could save the country by \$5 billion. The plan includes using more pipes and rails in transporting goods.
- Launched in June a three-month voluntary campaign nationwide such as turning off air-conditioners at lunch time and turning off lights for five minutes at night and driving no faster than 90 kilometers (55 miles) per hour.
- Ended gasoline subsidies by October last year and has reduced its diesel support twice and outlined further cuts in the diesel subsidy.
- Will start selling baht bonds from July to raise funds for financing the price support scheme.

PHILIPPINES

- Introduced a four-day work week to civil servants in April and May and expected to save at least 10 percent of the government's fuel and electricity bills during the two months.

INDONESIA

- Considering an automobile tax and a power tariff increase to curb demand, which has stretched fuel supplies thin and put mounting pressure on the budget due to soaring subsidy costs.

53. Alarm Over Smokey Cars in Auckland

Nearly one in 10 vehicles in Auckland has been found to need a serious tune up.

The Auckland Regional Council tested the emissions of 47,000 vehicles over the last six weeks, and found that more than 4,000 had a poor emissions reading. It says emissions from a poorly maintained vehicle can be up to 50 times worse than those from a well maintained vehicle. Up to 80 percent of Auckland's air pollution is from vehicle emissions.

The council will now analyze the testing data, to determine common factors among the badly maintained cars such as age and model.

Owners whose vehicles received a poor reading have been sent a letter encouraging them to do something to correct the problem.

54. Vietnam to Introduce Tough Standards For Vehicles Emissions & Fuels

Vietnam will tighten emissions standards for vehicles in 2007 as part of a bid to reduce air pollution, state media reported July 19. At a seminar held by the Ministry of Transport and Communications' Registration Department, policymakers finalized an itinerary for the application of the European Union's Euro 2 standards to new automobiles, motorcycles, and heavy vehicles, the official Vietnam News Agency reported.

VNA quoted Registration Department official Cao Xuan Vinh as saying emissions of lead, carbon monoxide, and nitrogen oxide were a major contributor to cancer and asthma among the general population.

The plan for tougher standards comes as the government struggles to mitigate pollution from the rising number of vehicles on Vietnam's roads. Ministry figures showed that in 2002 vehicles nationwide consumed about 1.5 million tons of fuel, generating 6 million tons of carbon dioxide, 61,000 tons of carbon monoxide, and 35,000 tons of nitrogen oxide. According to the Registration Department, the number of vehicles in Vietnam has been growing at a rate of 15 percent per year.

The Vietnamese government is currently receiving funding and technical assistance from several sources to improve air quality in urban areas, including the Asian Development Bank (ADB), the World Bank, and the United States-Asia Environmental Partnership.

55. Japan Mulling Tougher Auto Efficiency Standards

On July 5th, Japan announced it would toughen automobile fuel efficiency standards set to take effect in fiscal 2010 in a bid to further reduce carbon dioxide emissions. The Ministry of Land, Infrastructure, and Transport and the Ministry of Economy, Trade, and Industry said in a joint statement that tighter standards were appropriate because about 80 percent of new gasoline-powered vehicles in Japan already meet standards introduced in 1998 that are due to take effect at the end of the decade.

Any changes would affect all gasoline-powered passenger cars as well as commercial vehicles less than 2.5 metric tons in curb weight.

The two ministries said they would begin holding meetings in July to discuss revising the standards.

Studies already conducted by the two ministries have found that it would be feasible to bring in stricter standards earlier, the statement said.

The two ministries will also consider revising the current "green auto tax," which reduces annual taxes for vehicles that are at least 5 percent more fuel efficient than required by the 2010 standards, the statement said. Any changes would take effect in fiscal year 2006, an MLIT official said.

MLIT also plans to review auto emissions standards of nitrogen oxides, sulfuric oxides, hydrocarbons, and particulate matter but no details have yet emerged.

56. China Will Implement Low Sulfur Fuel Strategies

A SEPA-USEPA international workshop on low sulfur fuel strategies for China was held on July 14, 2005 in Beijing. The deputy director of State Environmental Protection Administration (SEPA), Mr. Zhu Guangyao and American ambassador, Mr. Clark T. Randt attended the workshop and gave their remarks. Both Chinese and American officers, scholars and participants from the petroleum and vehicle industries carried out discussions on improving oil quality, reducing fuel sulfur content and improving air quality.



Zhu Guangyao said that China would develop its work on the following aspects. Firstly, China will constitute a vehicle fuel low sulfur strategy and confirm a vehicle fuel low sulfur schedule for

vehicle emission standards. Secondly, SEPA will promote the production and use of clean vehicle fuels and prescribe sulfur content in gasoline and diesel for different emission standards by consulting vehicle fuel standards of other countries. China will also implement price and revenue policies for clean fuels in order to keep clean fuel not only high quality but also inexpensive.

Ms Margo T. Oge, director of office of transportation and air quality of USEPA said that fuel quality is one of the main problems, which affect vehicle emission control in China. Reducing sulfur content in fuels may help China to implement Phase III and Phase IV

standards successfully. Ms. Oge said that only by addressing the issue of sulfur in fuel can China actually achieve its stated emissions targets.

"Without addressing sulfur, [the Chinese government] cannot ask the car companies and the ... diesel engine companies to reduce tailpipe emissions by a significant level," Ms. Oge said. "The sulfur poisons catalytic converters," Oge explained. "So the No. 1 priority is to address fuel quality."

Tang Dagang, director of SEPA's Vehicle Emissions Control Center (VECC), said that China will implement the Euro 3 standard for sulfur in gasoline (150 parts per million) nationwide by July 1, 2008. Target dates for the nationwide implementation of Euro 3 standards for other pollutants in gasoline, and also for diesel, will "probably" be announced later this year, Mr. Tang said.

Meanwhile, Oge said she sensed the Chinese authorities and fuel companies are "committed" to tackling the issue, but said her office had "urged" them to set more ambitious targets to reach "as soon as possible."

Oge said China may have to speed up implementation of the Euro 3 and Euro 4 automobile emissions standards. "My belief is that they're going to have to potentially reassess those levels, and maybe even do something even earlier ... given the growth of emissions from the transportation sector," she said.

More than 210 presenters from UNEP, EU, Energy Foundation, World Bank, National Development and Reform Commission, Ministry of Finance, Ministry of Science and Technology, Sinopec, Petroleum China, Vehicle Emission Control Center (VECC) of SEPA, Tsinghua University and other organizations came to the workshop.

57. Guangzhou To Accelerate Clean Vehicles and Fuels

The government of Guangzhou city has applied to the State Council to implement the Euro 3 vehicles emission standard in the next year, and plans to implement the Euro 4 vehicles standard around 2008. At the appointed time, the same fuel quality of sulfur levels in Europe will be requested to implement; 350 ppm for diesel and 150 ppm for gasoline respectively for Euro 3, 50 ppm for Euro 4.

58. Most Beijing Buses To Use Clean Fuel In 2008

An official with China's Ministry of Science and Technology announced in Beijing that 90 percent of public buses and 70 percent of taxis will be clean vehicles in 2008, when Beijing hosts the Olympics. Xu Jing, vice director of the ministry's hi-tech development and industrialization department, said by 2008, Beijing will need a total of 18,000 clean vehicles, including 1,000 pollution-free electric vehicles.

At the same time, Shanghai, China's most populous city and a financial hub, will have at least 1,000 clean electric vehicles, including 20 to 30 fuel cell vehicles, Xu said. At present, a fleet of 20 electric buses are running on the No. 121 public transportation line.

Another fleet of hybrid cars are now being tried out in Wuhan, capital of central China's Hubei Province.

Since 1999, the Chinese government has encouraged research and development on clean vehicles, including cars using clean fuel or alternative fuel, electronic cars, hybrid cars and fuel cell cars.

The state invested more than 1 billion Yuan (120 million US dollars) into research and development, producing 22 technical standards for electric cars manufacturing and 40 standards for fuel cell vehicles.

Leading domestic car manufacturers, engine-makers, research institutes and universities are joining the state research plan for cultivating China's clean vehicle industry.

Official statistics show that in 2004, China consumed 292 million tons of crude oil, 123 million tons of which were imported. Nationwide vehicles took up one third of the country's total oil consumption.

According to an estimation done by the State Environmental Protection Administration, in 2005 vehicle waste gas emissions will account for 79 percent of air pollution.

Research and development on clean vehicles has already been included in the country's strategic science and technology outline in the coming 15 years.

59. Exxon Mobil CEO sees potential in China

China's potential as an oil market is "huge," Exxon Mobil Corp. chief executive Lee Raymond said at a signing ceremony for the company's refining and petrochemical joint venture in Fuzhou, Fujian province. Exxon Mobil, China's Sinopec Corp. and Saudi Aramco are partnering in the \$3.5 billion refining expansion and greenfield petrochemical project along coastal Fujian that entails access to China's retail fuel sector.

"The retail portion is an important part of the project," Raymond told reporters.

"We're always looking for good projects in China," he said, but did not comment on any further projects Exxon was planning.

60. Beijing Has More Days Of "Blue Sky"

As of July 16, Beijing had enjoyed 132 days of "blue sky" this year, or 66 percent of all days under monitoring, according to the Beijing Municipal Bureau for Environmental Protection. Since the beginning of July, the bureau said, 15 consecutive days with good air quality were recorded in the Chinese capital.

The first six months witnessed 117 days with clear skies, or 64.6 percent of all days under monitoring, 13 days more than the year-earlier level, according to the bureau.

A local meteorologist said frequent cold air movements and frequent rainfall in the past several months were conducive to dispelling pollutants. The favorable weather conditions contributed significantly to the city's air pollution control plan."

Local environmental protection officials also ascribed good air quality to the government's efforts to control air pollution, such as moving polluting sources out of the city proper and emission control, among others.

According to Beijing's annual air pollution control plan, the city aims to have 230 days with clear skies this year, as against 228 days last year.

61. China's President Calls For International Cooperation In Climate Change

Chinese President Hu Jintao has called on the developed and developing countries to promote cooperation through technology exchanges and funding to tackle the problem of climate change at a dialogue session between the leaders of G8 and those of five developing countries. Both as an environment issue and a development issue, climate change, in the final analysis, falls in the category of development, Hu said in a speech.

Though different in perceptions and countermeasures toward the problem, different countries share a basic consensus for cooperation, dialogue and concerted efforts in meeting the challenges brought by climate change, Hu said.

The Chinese leader suggested all countries act responsibly for their peoples and the peoples around the world during their efforts to achieve development, taking into full account the tolerance of resources and the environment, balancing the development needs of the present with those of the future, and actively stepping up international cooperation against the challenges brought by climate change.

As many developing countries, including China, are currently actively developing economies as this is the most urgent task for them, the energy consumption is bound to increase, Hu mentioned. However, most of the developing countries have realized the economic development pattern characterized by high energy consumption, high pollution and high emission is non-sustainable, thus needing to be corrected quickly and resolutely, Hu added.

In his speech, Hu said that to enhance the international cooperation in climate change, it is necessary first to uphold the guiding role of the UN Framework Convention on Climate Change and its Kyoto Protocol, observe such principles as "common but differentiated responsibilities" enshrined in the Convention. Hu asked the developed countries to take the lead in reducing the emission level and help developing countries to improve their capacities to deal with climate change.

Secondly, it is essential to address climate change in the context of sustainable development, change the non-sustainable way of production and consumption, improve the eco-environment by conserving resources and reducing pollution, and follow a path of development that features harmony between economic growth and protection of population, resources and the environment, Hu suggested.

Thirdly, special attention must be paid to the utilization of science and technology. Result-oriented cooperation should be strengthened to expedite the advancement and dissemination of relevant technologies, energy technologies in particular, and to facilitate the mutual reinforcement of economic development and environmental protection.

President Hu also put forward a three-point proposal on the topic.

First, explore the possibility of an effective technology dissemination mechanism against climate change. This mechanism should substantially reduce the relevant technology transfer cost, so as to let more developing countries use the affordable yet advanced environmental-friendly technologies to control climate change.

Secondly, conduct mutually beneficial technological cooperation. It is necessary to rely on the synergy of all members of the international community to research and develop the many critical energy technologies and hopefully gain an early breakthrough. China is willing to step up cooperation of various forms with other countries on this issue, including setting up demonstration projects and joint technology R&D centers in China, to develop advanced technologies for clean energies and greater energy efficiency together, Hu said.

Thirdly, ensure available funding. At present, worldwide funding for alleviating climate change falls far short of what is needed. It is suggested that a financing expert group be established to study ways of increasing different channels of financing, and easing the way for developing countries to get more funds for their efforts against climate change.

In his speech, President Hu introduced the measures China has taken to reduce greenhouse gas emission and to save energy in tackling climate change.

Achieving sustainable development is a key objective of China's economic and social development program, Hu said. To create harmonious development between man and nature, China has taken a series of policies and measures to mitigate greenhouse gas emission to alleviate climate change.

In recent years, China has sped up efforts to readjust the economic structure, transform the mode of economic growth, rein in energy-guzzling industries, and build toward a national economy that is structurally resource-effective and energy-effective.

The Chinese people have worked hard to improve energy mix, develop high-quality energy sources, encourage the exploitation of new and renewable energy sources, promote clean energy, and improve energy-use efficiency by widely applying energy saving technologies.

China has come up with laws, regulations and policies to reduce the greenhouse gas emission, encourage the use of renewable energy, and conserve unrenewable energy resources. China is now working on a national strategy on climate change to keep up efforts at greenhouse gas emission mitigation, while working with other countries to actively address the issue of global climate change, Hu said at the meeting.

Leaders of the G8 and the five developing countries -- China, India, Brazil, South Africa and Mexico -- were gathering here to discuss the global economy, climate change and other major world issues.

62. Compulsory Limits Set On Car Fuel Use in China

China's first national standards on car fuel consumption have been enacted. They apply to new models of passenger cars, with a maximum of nine seats. Vice director of China's Standardization Administration, Sun Xiaokang said the new standards will help save energy.

"We are encouraging a conservation-minded society through the implementation of the new standards. It guides the consumers to use economical and low fuel consumption cars," Sun said.

The compulsory "Limits of Fuel Consumption for Passenger Cars," aims to cut liters per 100 kilometers by 10 percent by 2008. It is expected that 200 million tons of oil will be saved by 2030.

New car models with a weight below 3.5 tons and a minimum speed of 50 kilometers per hour, are divided into different grades, each grade has its own fuel consumption limitation. Manufacturers are not allowed to begin mass production if their new designs fail to comply with national fuel standards.

For cars designed in the past, a one-year grace period to meet the standards is granted.

Another standard that starts in 2008 requires vehicle fuel consumption to drop by another 10 percent from the first phase level.

China's new fuel consumption standards follow the Japanese "weight" model; they require each vehicle model produced to meet the standard, as opposed to a U.S.-style corporate average fuel economy (CAFE) system. The standards encourage the production of compact vehicles.

Enforcement remains a serious challenge. Even as of late July, the authorities had issued no clear guidelines on how the standards will be implemented, leaving industry participants to speculate on how strictly the standards will be enforced.

Many expect a more detailed set of implementation measures to be published sometime "within the next several months," and also expect the government to carry out a "tax policy package," encouraging fuel economy through a combination of the vehicle excise tax and other penalties for non-compliance.

Authorities are currently engaged in adjusting the vehicle excise tax as part of their efforts to encourage fuel economy. Unlike the current system, which divides vehicles into three classes according to engine size with tax rates varying from 3 percent to 8 percent, the new system is likely to create seven classes of engine size and to impose rates ranging from 1 percent, for cars with the smallest engines, to 20 percent.

State media reports have confirmed that such a reform to the vehicle excise tax is under way. The state-run China Daily June 27 cited Feng Fei, director of the industry department at the State Council's Development and Research Center, as saying his center has already submitted a plan for the vehicle excise tax to the central authorities.

The tax could range from 0 to 20 percent depending on a vehicle's engine size, the newspaper cited Feng as saying.

63. China Car Sales Accelerate, Market Shift To Cheaper Vehicles

Car sales in China jumped by nearly half in June, the fastest growth this year, and Toyota joined other car makers in raising 2005 sales targets to reflect a resurgence in the world's third-largest vehicle market. Passenger car sales in the first half climbed a more moderate 10.6 percent to 1.843 million units, the China Association of Automobile Manufacturers said in a statement, in line with expectations for 2005 growth of 10-15 percent.

Volkswagen, Europe's biggest carmaker, said it and its Chinese joint venture partners Shanghai Volkswagen and FAW-Volkswagen maintained their market lead with an 18 percent share of overall sales in the first six months. "The car manufacturer was able to affirm its leadership with 265,000 sold vehicles including imports from January to June 2005," it said in a statement. The numbers reflect retail sales rather than the wholesale data VW reported until the end of 2004, it said. In the first half of 2004, VW generated wholesale sales of some 306,000 units and had a market share of around 25 percent, a spokesman said.

Toyota Motor Corp., the world's second-largest auto maker, lifted its 2005 sales target for locally made vehicles by 8.6 percent to 145,500 units, and was preparing to more than double capacity by 2006, according to a Toyota executive and an official with an associated firm. Japan's largest car firm joins General Motors Corp., Hyundai Motors and PSA Peugeot Citroen in boosting annual sales targets in China, after demand strengthened late in the second quarter.

Car makers are betting on a partial return to the roaring growth of 2003, when car sales nearly doubled. The industry association said June passenger car sales in China leapt to 375,500 units, boding well for the rest of the year.

"In June, growth in China's passenger market showed signs of recovering," the association said in a brief statement.

Toyota's venture with FAW Group -- China's top local vehicle maker -- aimed to move 145,500 cars and sport utility vehicles this year, up from an earlier 134,000, according to an executive at a company that manages their sales. The venture sold 52,000 units in January-May, up 58 percent from a year earlier, a Beijing-based Toyota executive told the press separately.

Analysts warn also that resurgence in car sales after a dramatic slowdown in growth in 2004 might not translate into profits as car makers have slashed prices to entice buyers while Beijing clamps down on easy auto loans.

China, once an easy profit centre, has become one of the industry's most intense battlegrounds, prompting firms to slash prices and launch models to appeal to a growing class of nouveau riche developing a taste for cars.

Global auto makers are spending some \$15 billion to triple annual capacity to more than 7 million cars by 2008, which has sparked fears of an impending glut.

China is becoming a pivotal market for auto makers across the globe. GM and Volkswagen both count it as their second-largest market.

To help spur demand, Toyota -- which now sells the Vios, Corolla and Crown sedans among brands in the country -- plans to launch the Reiz and the Prius hybrid car this year, to lure clients from Nissan Motor Co. and other rivals. "We will continue to offer new models in China ... so long as there's a need for them," a Beijing-based Toyota executive said. "We're optimistic about the second half." Toyota is on track to raise capacity in China to 335,000 units by mid-2006 from around 135,000 units now as a new plant in the south of the country starts full operation.

Analysts have said car sales are expected to grow 10-15 percent this year, matching growth in 2004 but well off a doubling in 2003. But signs that growth in demand could be on the rebound have surfaced. PSA Peugeot last month raised its 2005 China unit sales target by 17 percent, followed by Hyundai hiking its by 15 percent after doubling capacity at its local plant. GM has said that it is aiming for sales growth in excess of 20 percent, versus a previous target of keeping pace with the market.

China's car industry may be moving back into the fast lane, but the winners are likely to be the Japanese, Korean and local firms offering smaller, cheaper cars. Saturation among wealthier Chinese will likely skew growth toward smaller, low-budget cars, helping Asian firms such as Hyundai Motor Co. Ltd. and domestic players such as FAW Xiali.

Amid signs of a long-heralded shake-up in the world's third-largest vehicle market, makers with rock-bottom price tags are grabbing market share from the pricier Western models. "If you look at market momentum, it's the Japanese and Koreans who are taking share," said Michael Dunne at Automotive Resources Asia. "Their real concern is less VW, and more the Japanese and Koreans."

With many of the wealthiest already behind the wheel, manufacturers had to target a less brand-conscious, more price-sensitive group of buyers, analysts said. Carmakers catering to the sub-50,000 Yuan (US \$6,042) class stood to benefit the most, said Yale Zhang at consultancy CSM, referring to locals such as Hong Kong-listed Geely Automobile. The move toward cheaper low-end cars could come at the expense of marques like Volkswagen and Honda that do not yet offer a car in that price range.

Automotive experts expect the number of cars sold for under US \$12,000 -- including GM's Sail and Spark sedans -- to account for 45 percent of the market this year, up sharply from 24 percent in 2003. In India, that figure is closer to 75 percent.

With foreign players from Ford Motor Co. to Nissan Motor Co. Ltd. spending some US \$15 billion to triple capacity to over 7 million cars by 2008, there's still a risk of an impending glut that would hit all market participants alike.

Guotai Junan Securities analyst Zhang Xin said Volkswagen's market share could slip to 15 percent soon from a quarter at the end of last year. Other analysts reckon the

German firm might post a loss in China this year. In fact, as many as half of the country's carmakers are thought to be losing money, according to some estimates.

To improve margins, many are changing their game plans for China, shifting more production to the mainland and increasing local sourcing. Analysts said automakers were bracing to ride out pain in coming years.

64. China Cuts Diesel, Gasoline Exports

China is scaling back gasoline and diesel exports in August after a big rise in domestic prices encouraged them to sell more fuel locally, boosting lackluster consumption growth, traders and analysts said. The August exports are the first sign that refiners may be supplying more fuel into the domestic market, where analysts believe continued strong demand growth has been left partly unsatisfied by refiners trying to avoid loss-making sales. This year's flood of exports have led to weak apparent consumption rates, a major worry for oil traders counting on another year of expanding demand from the world's No. 2 consumer.

China, Asia's top gasoline supplier, reduced August exports of the motor fuel by nearly 30 percent versus July to 340,000-400,000 tons, the lowest since February. Exports of diesel will fall 40 percent from July to 130,000 tons, although this is still a reversal from last year, when refiners imported large volumes of the product.

Some also attributed the drop to slack regional end-user demand for diesel after the removal of subsidies in many Southeast Asian nations and high Singapore benchmark prices. Both domestic Chinese oil companies will continue to shun imports as local prices are still 500 Yuan (\$61.70) a ton below the cost of spot diesel on the international market.

PetroChina will resell all its contractual diesel supplies in the Asian spot market. The oil exports plan suggests that oil demand, which contracted almost 1 percent in the second quarter, may be coming into line with economic growth, which grew 9.5 percent in the first half.

Analysts said the dissociation between the economy and oil consumption had been caused by China's below-market retail price caps and soaring global prices, which turned margins negative and prompted refiners to maximize exports and stifle local supply. China ramped up gasoline exports by 32 percent to more than 150,000 barrels per day (bpd) in the year through June, while diesel exports surged 140 percent to 26,000 bpd in the same period, Chinese customs data showed. But Beijing's twin decisions to raise retail fuel prices by about 6 percent and revalue the Yuan currency by 2.1 percent gave import-dependent refiners' profit margins a much needed boost.

65. Toyota's China Partner Profits and Earnings Rise

Toyota Motor Co.'s main Chinese partner posted a 50 percent jump in second-quarter earnings as car sales leapt two-thirds in the first half and margins firmed despite high steel costs and price cuts. FAW Xiali Automobile Ltd., which makes Toyota's Vios and

Corolla sedans, reversed a first-quarter loss to record a net profit of 92.68 million Yuan (\$11.44 million) from April to June, versus 61.7 million Yuan a year ago.

Xiali, China's fourth-largest listed car maker by capitalization, had posted a 32.1 million Yuan loss in the first quarter as the world's third-largest vehicle market fell under margin pressures, with steel prices soaring to a decade-high while domestic competition intensified.

Xiali sold 97,750 sedans in the first half, up 65 percent from the same period of last year. But turnover rose a much slighter 11 percent to 3.44 billion Yuan. Margins on all products -- mainly cars -- inched up 2.92 percentage points to 12.55 percent in the first half, the company said without giving a quarterly breakdown.

For the first half, Xiali's net profit fell 19 percent year-on-year to 60.58 million Yuan, as it booked hefty depreciation charges of 102.56 million Yuan.

China's car sales have decelerated since the second quarter of last year when Beijing began slapping curbs on auto loans as part of efforts to slow the economy. Analysts say the market is expected to grow just 10 to 15 percent this year.

A margin-slicing price war is also hammering profits -- General Motors Corp, Ford Motor Co and Honda Motor Co have all cut prices so far this year.

Shanghai Automotive, which owns a fifth of GM's flagship Chinese venture and is the listed arm of China's largest car maker, said earlier this week it may post a loss for the first three quarters of the year.

Toyota, the world's second-biggest auto maker, was a relative latecomer, in 2003, to the world's fastest-growing auto market, where Volkswagen A.G., GM and Honda have been slugging it out for years.

Xiali parent First Automotive Works, China's largest maker of trucks, buses and other vehicles, has agreed with Toyota to make up to 400,000 of the Japanese firm's cars a year by 2010, under a deal in which Xiali would serve as a production base for both partners.

66. WHO say Dirty Air A Regular Killer In Asia, ASEAN Officials Fight Haze

A smoky haze that shrouded parts of Southeast Asia recently, forcing schools and businesses to close, is just one element of an air pollution problem that kills hundreds of thousands of people in the region annually, the World Health Organization said. Air pollution in major Southeast Asian and Chinese cities ranks among the worst in the world and contributes to the deaths of about 500,000 people each year, said Michal Krzyzanowski, an air quality specialist at the WHO's European Center for Environment and Health in Bonn, Germany.

Drifting smoke from purposely set forest fires in Indonesia caused Malaysia to declare a state of emergency recently in two areas outside Kuala Lumpur. Parts of Thailand were also blanketed in the haze. Port Kelang and Kuala Selangor declared a state of

emergency Aug. 11-13 when pollution reached levels the department deemed hazardous. In neighboring Thailand, the Ministry of Public Health Aug. 14 responded to reports of acute pollution in the southern part of the country by distributing 10,000 surgical masks and issuing a warning to residents to refrain from outdoor activities.

Malaysian health officials said hospitals reported a 150% increase in breathing problems and seven people who had a history of respiratory problems reportedly died. The government reportedly could not confirm the smoky air was to blame. The emergency in Malaysia was lifted after a few days but meteorologists are predicting a new cloud could hover over parts of Malaysia and possibly Singapore in the near future.

The haze, blamed on illegal dry-season burning to clear land on Indonesia's Sumatra island, is an annual problem. It peaked in 1997-98, when several countries in the region were blanketed in smoke.

WHO's Krzyzanowski said fine particles, including those released from fires, are a major contributor to respiratory problems, especially in children, the elderly and people with existing illnesses. He said more cases may be reported during smoggy periods, but day-to-day pollution is a far larger concern. "Even though it is very spectacular and acute, it will be taken under control," Krzyzanowski said. "Traffic-related pollution, industry and criminal burning of wood and coal and solid materials is causing a permanent high pollution level."

People with asthma are more prone to attacks on days with heavier pollution, and dirty air can also contribute to acute respiratory infections — a major killer in children younger than five in developing countries, he said. People with cardiovascular problems also are at increased risk, he added.

Environmental officials from member states of the Association of Southeast Asian Nations (ASEAN) ended talks in Penang, Malaysia, Aug. 17 with a pledge to boost cooperation to tackle the severe transboundary air pollution of the type that caused parts of Malaysia to close businesses, schools, and ports. In a prepared statement, the officials said they had resolved to "further disseminate and implement preventative measures such as monitoring, enforcement, zero-burning, and controlled-burning practices" under the ASEAN Agreement on Transboundary Haze, which took effect in November 2003.

The 2003 ASEAN Agreement on Transboundary Haze was intended to prevent such occurrences. It contains provisions on joint monitoring, assessment, and prevention of forest fires, and it commits parties to respond promptly to any requests for help in fighting haze that moves across borders.

But Indonesia, which is the leading source of the problem due to the prevalence of slash-and-burn agriculture there, has yet to ratify the pact or to give any concrete indications about when it may do so.

At the ASEAN meeting that concluded Aug. 17, officials agreed to build on the agreement by establishing a "Panel of ASEAN Experts on Fire and Haze Assessment

and Coordination," which will "undertake rapid assessment of the situation on the ground during critical periods of fires and haze, and provide recommendations to facilitate immediate response and effective mobilization of resources in the region."

Indonesia has announced it would take action against 10 firms suspected of deliberately setting fires to clear land for palm plantations. The companies, eight of which are Malaysian, control concessions on more than 200,000 hectares (494,000 acres) of land in Sumatra.

67. Malaysia Lists Vehicles Found Violating Standards

On August 8th, Malaysia's Department of Environment (DOE) began displaying on its Web site complete lists of vehicles impounded across the country over the last 18 months for violating emissions standards. The move is part of a push to get vehicle owners to pay outstanding fines. The majority of the over 700 vehicles listed are trucks and buses owned by local transport and manufacturing firms. Under Malaysia's national Environmental Quality Act owners must pay a fine of 2,000 ringgit (\$5,327) for any vehicle impounded by the DOE and are barred from operating an impounded vehicle until environment officers have deemed it roadworthy. Violators face fines of up to 100,000 ringgit (\$26,636) and five years in prison. Khairuddin Mohamad Idris, deputy director-general of the DOE's Vehicle Pollution Monitoring Section, told reporters upon announcing the initiative that vehicle owners refusing to pay impound fees would soon be taken to court. According to the DOE, vehicles are the source of over 80 percent of air pollution in Malaysia.

68. Vehicle Emission Health Hazard Hurts Sri Lanka's Economy

Emission of poisonous gases by motor vehicles that exceeds the parameters set out by the World Health Organization and the Central Environmental Authority of Sri Lanka causes serious health hazards for the people, especially for the urban and suburban dwellers. This high pollution kills and has a serious impact on the economy by on the one hand increasing medical care and on the other hand by fuel waste due to improper fuel combustion.

Vehicle emissions are a major contributor to the fast deteriorating ambient air quality of urban and sub-urban Sri Lanka.

The Department of Transport in collaboration with other relevant ministries and with the financial and technical assistance of international development support agencies has taken several initiatives with a view to introduce appropriate remedial measures. One such measure is to control the vehicle emission by implementing an Island wide program for the testing of vehicle emissions. The legislation in this regard and emission standards have already been gazetted.

A comprehensive survey on 'Remote Sensing of Vehicle Emissions in Sri Lanka' has been conducted by the Ministry of Transport and in the survey and preparation of the Report assistance has been provided by the Environment Systems Products (ESP) of USA in association with the Industrial Services Bureau (IBS) and Hayleys Ltd under the

sponsorship of USAID/US-Asia Environmental Partnership (US-AEP) and the USAID/Global Development Alliance.

A half day seminar to present the findings of the Vehicle Emission Remote Sensing Survey and Agreement Signing of the Mandatory Vehicle Emission Monitoring Project was held recently in Colombo. The Survey Report was extensively discussed at this Seminar.

The Survey points out that the rapidly increasing vehicle population and fuel consumption, particularly diesel, the high proportion of old vehicles and poor vehicle maintenance, the absence of clean fuel; and the high rate of urbanization are contributing to pollution levels in Sri Lanka that are significantly higher than health standards.

Automobile exhaust is a major source of air pollution in Sri Lanka. Existing evidence has shown that the urban environment of Colombo is heavily contaminated with vehicular emissions. Studies have clearly shown that inefficient combustion of petroleum in motor vehicles is the primary cause of growing air pollution in Colombo, the largest metropolitan area with nearly 50 percent and 30 percent of the nation's vehicle population and human population respectively. The observed lead (Pb), total suspended particulate (TSP), sulfur dioxide (SO₂) ozone (O₃) levels are reportedly significantly higher than the levels recommended by the World Health Organization (WHO) and the Central Environmental Authority (CEA) of Sri Lanka.

Respiratory disease is the second leading cause of hospitalization. Asthma has become a major respiratory disease due mainly to the explosive growth of 3 wheelers and 2 wheelers and the significant increase in diesel fuel consumption. The 3 and 2 wheelers represent more than 50 percent of the overall 1.1 million vehicles population and 85 percent of the operational road vehicles. Motorcycles and three-wheelers have the highest emission rates of HC and CO and contribute to over 70 percent of HC. The 1996 and newer petrol vehicles have lower levels of HC and CO emissions than older vehicles. Diesel vehicles have high emission rates of NO_x accounting for more than 75 percent of NO_x. The new diesel vehicles have NO_x emissions rates similar to older vehicles. Diesel vehicles and two-stroke petrol vehicles combined create 80 percent of the particulate matter and smoke.

During the 90s the per capita petrol fuel consumption increased by 23 percent while per capita diesel fuel consumption increased by 92 percent. Overall the small diesel fleet increased 300 percent due to pricing policies of diesel vs. petrol. Even 63 percent of the 4 wheelers were diesel in 2000 compared with 46 percent in 1985.

The government policy of importing second hand reconditioned vehicles for economic reasons has aggravated the proliferation of poorly maintained vehicles. Of the total vehicle number about 25 percent were new; the rest were reconditioned vehicles. Motor Cycles and three wheel vehicles have the highest emission rates. The dirtiest 10 percent of vehicles for each pollutant have typically three to five times the emissions of average vehicles.

A May 2003 Economy and Environment Program for Southeast Asia study reported that petrol and diesel vehicles account for 78 percent and 22 percent of the total vehicular emissions. Cars and motorcycles with 2 stroke engines account for 55 percent of vehicle

emissions among petrol driven vehicles, whereas buses and trucks account for about 90 percent of emissions among diesel-driven vehicles. The study strongly discourages importation of 2-stroke motorcycles because of their considerable amount of emissions.

The two enforcement applications of Clean Screening (CS) and Gross Emitter Identification (GEI), and the monitoring application known as I/M Program Evaluation (PE) can be applied together to supplement the new vehicle inspection and maintenance program and help reduce harmful vehicle emissions. In addition, program evaluation and fleet characterization are two important tools that can be applied to ensure that the vehicle inspection and maintenance program achieves its objectives, the Survey concluded.

69. India Seeks Reduced Congestion Under Draft Urban Transport Strategy

India's first draft National Urban Transport Policy aims to reduce congestion in cities, crack down on air pollution caused by motor vehicles, improve road safety, and promote the use of technologies that help to minimize the consumption of oil in urban transport. The draft document is being finalized and will be sent to Prime Minister Manmohan Singh's Cabinet for approval later this year, after which it would become official government policy.

The draft policy, drawn up by the Ministry of Urban Development and presented to states and federal territories in late June, notes that the increasing number of automobiles has led to "severe congestion" in cities, where "pollution loads are far above acceptable levels."

In addition to causing more accidents, increased use of private vehicles has also increased demand for petroleum products, most of which are imported, the document says, adding: "All the above trends are likely to continue as further urbanization takes place."

The ministry said that management of urban areas is mainly the responsibility of individual states, but it said several federal agencies will "play an important role" in devising urban transport systems.

The draft policy also calls for federal assistance for cities in the form of subsidies for feasibility studies and help in financing projects.

The policy firmly favors encouraging public transport as an alternative to greater private car ownership. "It is amply clear that public transport occupies less road space and causes less pollution per passenger than personal vehicles," the draft states.

It notes that two-wheel vehicles such as scooters and motorbikes that use two-stroke engines emit the most pollution per person, while those fitted with four-stroke engines are less harmful.

The policy recommends several market mechanisms to "restrict" the use of private vehicles, including "higher fuel taxes, higher parking fees, reduced availability of parking space, longer time taken in traveling by personal vehicles vis-à-vis public transport, etc."

Major elements of the draft policy include:

- encouraging cities with a population of more than 1 million to phase-out vehicles using two-stroke engines;
- discouraging use of private diesel cars;
- enabling non-motorized transport, such as bicycles and cycle rickshaws, to use urban areas in a way that complements other modes of transport;
- commercializing electric-vehicle technologies; and
- encouraging cities with a population of more than 5 million to opt for mass rail transit systems.

To help do this, the federal government will fund half the cost of required feasibility studies. It will also buy a stake in the companies set up to launch and operate such rail systems, along the lines of the Delhi Metro Rail Corporation in the Indian capital.

Of India's four largest cities, Calcutta and Madras do not have mass-rail-transit systems while Bombay and Delhi do.

70. Toyota, TERI To Study Air Quality In Bangalore

Toyota Motor Corporation has linked up with The Energy and Resources Institute (TERI) to study alarming pollution levels in Bangalore by using a special air quality model for the first time in India. The multi-grid three-dimensional (3D) air quality model, developed by Toyota Central R&D Labs, was earlier used in Japan and the US. It will be used for the Toyota-sponsored three-year pilot study that will cost Rs 7 million.

"The three-year study will apply the 3D model to devise strategies for improving the air quality in Bangalore, which was once a pensioners' paradise before haphazard growth and chaotic expansion dealt a body blow to its reputation of being a garden city," TERI director general R K Pachauri told reporters.

The study will also focus on particulate matter by working on two models - "community multi-scale air quality" and "urban to regional" - designed to address air quality issues like fine particles, ozone and acid deposition.

Pachauri said: "Since particulate matter is a major pollutant in most urban areas, our study will focus on modeling of particulate matter. The sources of pollution taken up for study are vehicle emissions and stationary emissions from industrial units and domestic utilities with target pollutants such as ozone, oxides of nitrogen and Suspended Particulate Matter (SPM)."

According to Toyota's senior technical executive Hiroyuki Watanabe, the company's laboratories had initiated the 3D air quality study in the US and Japan over a decade ago and contributed to environmental improvement with recommendations for State intervention.

"The objective was to evaluate air quality in the US for Toyota's environmental action plan. Later, we developed a Japanese model to suggest an environmental policy for the Japanese government," Watanabe said.

Toyota and TERI plan to replicate the study in other major Indian cities after assessing the benefits of their study in Bangalore.

"We will come out with interim reports at the end of the first and second years and compile a final report at the end of the third year, incorporating the views of other stakeholders that will be elicited through a workshop," Pachauri said.

71. China Workshop Focuses On In Use Vehicles

Vehicle emission control has become the key element of Urban Air Quality Management in China. As China's vehicle population and ownership are increasing rapidly and regulations for new vehicles become more advanced and comprehensive, the management of in-use vehicle emissions has drawn extensive attention from the central level to local levels. Different from new vehicles emission management, in-use vehicle emissions management needs lots more input at local levels concerning I/M organization establishment, standard operation procedures, data management, etc.

Echoing the newly effective limits and measurement methods standards concerning in-use vehicles emissions management, the training workshop held by the State Environmental Protection Administration (SEPA) from August 2 to 5, 2005 at the Center of Environmental Management Research of SEPA in Xingcheng, Liaoning Province attracted more than 200 people from across the country, covering 25 provinces and the 4 province-level cities. Environmental protection officials, vehicle emission monitoring and testing technical staff, academe, and industries showed great interest in the testing methods and technical guidance on in-use vehicles emissions management.

The workshop introduced and further explained the following standards which regulate limits and measurement methods for in-use gasoline vehicles, diesel vehicles and motorcycles.

GB18285-2005 Limits and measurement methods for exhaust pollutants from vehicles equipped with spark ignition engines under two-speed idle conditions and simple driving mode conditions (promulgated on May 30, 2005 effective from July 1, 2005)

This standard prescribes limits and measurement methods under two-speed idle conditions and measurement methods of 3 simple driving modes. The two-speed idle has a high idle of 2500 ± 100 r/min. for light-duty vehicles and 1800 ± 100 r/min. for heavy-duty vehicles. The emission limits (HC, CO) are regulated according to the period when the vehicles were manufactured. The simple driving modes include a combination of ASM5025 and ASM2540, an IM195 and an IG195 three simplified test methods. The emission limit values for these three simple driving modes test methods are not regulated and left for local authorities to regulate according to their situations.

GB3847-2005 Limits and measurement methods for exhaust smoke from C.I.E. (Compression Ignition Engine) and vehicle equipped with C.I.E. (promulgated on May 30, 2005 effective from July 1, 2005)

The standard prescribes smoke emission test methods for diesel vehicles according to the vehicles manufacture period and vehicle emission pollution situations at local level. For vehicles manufactured after Oct. 1, 2001, free acceleration opacity meter method applies; limit values are different for natural intake and turbo engines. For those manufactured before Oct. 1, 2001, free acceleration filter method applies; limit values different before and after manufacture date July 1, 1995. For areas with serious vehicle emission pollution situations, esp. by diesel vehicles, lug-down method applies. This standard also applies in new vehicle or engine type approval and COP test.

GB19758-2005 Limits and measurement methods for exhaust smoke emissions from motorcycles and mopeds (promulgated on May 30, 2005 effective from July 1, 2005)

This standard prescribes the limits and measurement methods for smoke emissions from motorcycles, for in-use motorcycles and for new motorcycles type approval. Instead of using free acceleration test method, it uses snap acceleration method, which uses a 32 seconds test cycle with clutch engaged for gear I.

The workshop also explained a non-mandatory standard, which helps local governments to scientifically understand their vehicle emission pollution situations.

HJ/T180-2005 Method for estimation of air pollution from vehicular emission in urban area (promulgated on July 27, 2005 effective from October 1, 2005)

Taking into consideration that local environmental protection authorities may need further guidance and instruction on vehicle emission management, the workshop introduced a technical guidance on in-use vehicles emissions inspection and test to be launched by SEPA. The Guidance covers the full range of in-use vehicles emissions management, including general provisions on administrative procedures, inspection operation procedures, performance, use and management of test equipment, record keeping, data statistics, analysis and reporting, supervision of test quality, etc. These aspects still need to be further detailed according to local situations.

It is reasonable to expect that a lot of work is to be carried out in the future, on an ongoing basis, at local levels in China concerning in-use vehicle emission management. Lots of international experiences may be needed to improve the management. Lots of test equipment will be purchased. Lots of I/M stations are to be established. Lots of technical people are to be trained. Maybe in the future, lots of experiences can be exported to other areas in Asia.

72. Older Car Imports Facing Ban in New Zealand

Environmental groups in New Zealand want the government to ban the importing of vehicles older than seven years unless they meet strict emission standards. An age limit on imported Japanese used vehicles is being considered by the Government, to cut pollution and reduce fuel consumption.

The Transport Ministry had been asked to study improving the emissions and fuel efficiency of used imports, including looking at the option of an age limit. Transport Minister Pete Hodgson has told the press that he expected an interim report this year. He said the possible social cost of such a policy would be kept clearly in mind. Thousands of New Zealanders drive imported Japanese vehicles.

Finance Minister Michael Cullen said in an interview that an age limit was something that needed consideration as part of a "suite of responses" to rising energy prices and emissions. He did not have an age limit in mind. "People are going to have to think more about the efficiency of the vehicles that they use," he said. "Do we have to think about how old we allow used imports to be, because the younger they are generally speaking the more efficient they are?"

The Government recently announced plans for stricter warrant of fitness standards on vehicle emissions by the end of next year. Details are yet to be decided.

Taken together, an age limit and the warrant tests would be expected to reduce the age of the country's vehicles - average age 12 years in 2003.

LATIN AMERICA

73. Peru Passes New General Environment Law But President Vetoes It

On June 23rd, Peru's Congress unanimously passed a new General Environment Law that updates and unifies a wide range of environmental legislation. The law (Bill 11212/2004-CR) replaces the Environment and Natural Resources Code (Legislative Decree 613), which dates from September 1990, and incorporates a number of laws that have been passed since then.

Congress passed legislation two years ago creating a special commission to rewrite the Environmental Code (Law 27980, May 22, 2003). The 15-member commission included members of Congress, Cabinet ministers, environmental nongovernmental organizations, and business representatives. The commission held hearings in Congress and also held 10 public working sessions in cities around Peru.

One significant change in the legislation augments the powers of the National Environment Council (Consejo Nacional del Medio Ambiente, CONAM) to oversee and enforce environmental policies. Under the earlier code, CONAM's role was limited to coordinating policy. Article 56 states that CONAM is the "national environmental authority" and, as such, is in charge of guaranteeing compliance with the 155-article law.

CONAM is also in charge of implementing environmental quality standards and setting emissions standards. In addition, Article 33 of the law states that when setting limits CONAM "must take into account standards established by the World Health Organization or international entities that specialize in each of the environmental issues."

Articles 31 and 32 define "environmental quality standards" and "maximum permissible limits."

The law also specifies actions the state can take against companies or individuals that violate environmental norms. The actions run from admonition for first-time offenders to maximum fines of 33 million nuevos soles (US \$10 million) and confiscation of property for repeated offenses.

On July 20th, Peruvian President Alejandro Toledo vetoed the new Law. The president's veto included 23 criticisms of the bill (11212/2004-CR). Many of the president's objections involve complaints that the bill would hamper private investment by opening up possibilities for litigation.

"The content of the proposed legislation does not favor the expansion of productive activities that are very important for the country," according to the document signed by President Toledo and Premier Carlos Ferrero.

The veto lists a number of supposed problems with definitions and responsibilities.

For example, the president questions Title VII of the bill, which states that "when there is reasonable indications of grave and irreversible harm to human health or the environment, the lack of absolute scientific evidence is not a sufficient reason to postpone the adoption of measures to reduce or eliminate the risk." In his comments, President Toledo says this description "could lead to excesses that would involve adopting measures that impede or block business activities without any technical or scientific basis."

Point 10 on the president's list states that the fines established by Article 136 in the bill are "excessive and could be considered as an attack on juridical stability of companies." The bill sets fines for environmental crimes at 10,000 Tax Units. Each Tax Unit is equivalent to 3,300 nuevos soles (US \$1,014), which puts the top fines over US \$10 million.

In explaining the veto, President Toledo criticized the inclusion of World Health Organization (WHO) standards for setting limits on maximum allowable levels of contaminants, stating that "the a priori adoption of standards, like those of the WHO, without previously establishing their applicability, could hamper economic activity in the country."

The document goes on to state that setting limits based on international standards violates the principles of the Rio Declaration, which "recognizes that developing countries have the right to special standards different from those of international standards."

Finally, the veto objects to increased authority given the National Environment Council (Consejo Nacional de Medio Ambiente, CONAM), claiming that it violates the autonomy and constitutional functions of other entities, including Cabinet ministries. Article 56 in the bill elevates CONAM as "national environmental authority."

Cruz said that it would have been more reasonable for Toledo to have signed the bill and then submit supplementary legislation to correct shortcomings. The veto returns the legislation to the commission, where it might get trapped as the electoral season heats up. Presidential and congressional elections will be held in April 2006, but parties will start holding primaries this September.

Coincidentally, the president's veto was made public the same day the National Statistics and Information Institute (INEI) released its most recent numbers on air and water quality in Lima, Peru's capital. According to the INEI, the level of suspended particulates in the air in downtown Lima in May was 265.14 micrograms per cubic meter, far higher than the critical limit of 75 [micro] g/m³ established by the World Health Organization.

74. Peru Cracks Down on 'Dirty' Diesel Fuel, Reduces Sulfur Content

Peru's Ministry of Energy and Mines published a supreme decree July 6 establishing a time line for reducing the sulfur content of various types of diesel fuel by 2010. Supreme Decree 025-2205-EM requires a reduction in diesel 1, the most widely used form of this fuel, to 3,000 parts per million within 60 days of publication in *El Peruano*, the country's official gazette. The standard will drop to 50 ppm on Jan. 1, 2010.

Another form of the fuel, known as diesel 2, must not exceed 5,000 ppm within 60 days, down to 50 ppm in 2010.

The decree also prohibits within 60 days the importation of any form of diesel fuel with sulfur levels higher than 2,500 ppm. Peruvian refineries have been importing "dirty" diesel with sulfur levels as high as 9,000 ppm.

The decree corresponds to draft legislation published in February that loosely followed the European Union (EU) system for reducing the fuel's sulfur content. Under the draft, sulfur levels were to fall to 350 ppm by 2006 and 50 ppm by 2011.

While environmental organizations in the country were pleased by the decision to move up the final implementation date by a full year, they were disappointed that the decree did not specify annual targets for reducing sulfur.

The Regional Clear Air Program (PRAL) and other associations have been lobbying the government to adopt more stringent norms to control air pollution in urban areas, particularly Lima. The National Statistics and Information Institute reported that air-quality monitoring stations in downtown Lima in April recorded 495.32 micrograms per cubic meter (g/m³) of particulate matter, which is 6.6 times the acceptable limit and more than double the amount in April 2004.

"This legislation allows for extremely high sulfur levels for several more years because it does not include a time line for progressively reducing the amounts. There is a five-year period to go from 5,000 ppm to 50 ppm, but nothing in the middle," said Jon Bickel, head of PRAL.

75. Peru Converts Locomotives to Natural Gas

Peru's Central Andean Railroad on June 16 began running the first of eight locomotives that are being converted from diesel to natural gas as part of a campaign to cut costs and reduce emissions. The railroad is reportedly the first in the world to convert

locomotives from diesel to natural gas and the fuel is expected to reduce emissions by 70 percent.

The switch is also expected to reduce operating costs by 30 percent. Natural gas is cheap in Peru since the hydrocarbon began being produced from the domestic Camisea gas fields last August.

Major railroads in North America are beginning to switch to cleaner hybrid locomotives that run on an electricity-diesel combination, but plans in the United States to use natural gas are on hold due to the high cost of the fuel.

Central Andean Railroad has been working on the conversion process for two years, with much of the time dedicated to designing the natural gas tanks attached to the converted engines.

Central Andean Railroad covers the world's highest operating lines, traveling over mountain passes that are nearly 5,000 meters (16,500 feet) above sea level. The railroad is used primarily for hauling minerals mined in Peru's central Andes. It ended passenger service more than a decade ago.

It costs the company about US \$100,000 to convert each engine.

Central Andean Railroad was privatized in 1999. The company hauls approximately 2 million tons of minerals annually. Sales were US \$22 million last year.

76. Venezuela's First Climate 'Communication' Highlights Obstacles

On June 22nd, Venezuela's Environment ministry presented the country's First National Communication on Climate Change as required under the U.N. Framework Convention on Climate Change. Venezuela ratified the Kyoto Protocol to the UNFCCC in February 2005 as a "Non-Annex I" (i.e. developing) country.

At a ceremony presenting the communication, Environment Minister Jacqueline Faría said the government would invest US \$84.1 million in climate monitoring equipment.

She also said the government would expand reforestation projects in part to capture carbon dioxide. According to the Environment Ministry ("MARN"), Venezuela is now losing about 200,000 hectares of forest cover annually while replanting fewer than 5,000 hectares. A government drive to break up large ranches and distribute land to peasant farmers has also generated concerns about accelerated deforestation.

At the same time, Faría said the government had no plans to reduce existing fuel subsidies, which amount to about US \$0.10 per gallon of gasoline.

According to the communication, Venezuela's greatest potential for reducing GHG emissions is in the transportation sector, but "low energy prices represent the main barrier to any mitigation program" since they inhibit incentives for investing in more efficient or cleaner technologies.

The document also said Venezuela lacks institutional capacity and legal instruments to effectively implement climate change measures.

Venezuela, the world's fifth-largest petroleum exporter, ranks fourth in Latin America in greenhouse gas emissions after Brazil, Mexico, and Argentina. A 1999 inventory of global warming gases found that Venezuela accounted for 0.48 percent of global GHG emissions and that Venezuelans produced 1.3 tons per capita, which is about the global average but is higher than other developing nations.

According to MARN, global warming will raise Venezuela's average temperature between 0.3 and 3.5 degrees Celsius by 2060 and increase the nation's arid regions to 47 percent of its surface area from 39 percent now. MARN also projects that hydroelectric generation would decrease and that farmers would have to migrate and switch to more drought-resistant crops.

77. Venezuela Oil Monopoly Reportedly to Discontinue Leaded Fuels

According to press reports, Venezuela's state oil monopoly, Petroleos de Venezuela (PDVSA), discontinued production of leaded gasoline by Aug. 15, according to spokesman Eddy Sanquiz de Suárez. Sanquiz de Suárez said the decision was made for environmental reasons. Norbis Peña, president of the National Federation of Hydrocarbons Businesses, which represents gas stations, said that gas stations have already been receiving gasoline with lower-than-normal lead concentrations. She said that in the eastern part of the country gas stations have been told to wash the accumulated lead out of their storage tanks. Venezuela began phasing out leaded gasoline in 2000, and in 2002 PDVSA eliminated the two most heavily-leaded of the three then-existing grades of leaded gasoline. The measures have already helped reduce lead in air pollution, according to government reports

78. Petrobras Investing To Improve Fuel Quality

Petrobras announced an \$8.6 billion refining investment plan for 2006-2010 that includes construction of several hydrotreaters, desulfurization units and cokers at the Brazilian oil firm's refineries. About 38% of the \$8.6 billion set aside for refining operations through the end of the decade is allotted to fuel quality upgrades, including construction of a dozen diesel hydrotreaters, 11 gasoline hydrodesulfurization units and two diesel hydrodesulfurization units.

About \$2.6 billion will be spent building seven cokers to increase conversion capacity, while 2% of the overall \$8.6 billion budgeted for 2006-2010 will be spent on capacity expansions.

Nearly \$1 billion will be spent on construction of a new refinery, according to company officials. Petrobras and PDVSA (Venezuela) jointly are looking to develop a refinery in northeast Brazil.

The new spending this decade will exceed that of the 1970s, the last big Petrobras downstream spending boom.

On August 11th, Petrobras announced it would spend US \$1.4 billion to expand and modernize facilities at one of its largest refineries, with one half of the expenditure going to environment-related upgrades. The six-year project aims to increase refinery capacity at the President Getúlio Vargas Refinery (Repar), in southern Paraná state, by 10 percent and to add a propylene plant, according to Repar refinery general manager João Oderich.

The project will also add a hydrogen-injection process to reduce the sulfur content in gasoline and diesel fuel, its two main products, by 98 percent and 94 percent respectively, he said. "This drastic reduction in the sulfur content of our gasoline and diesel will mean a major decrease in sulfur emissions from automotive vehicles using these cleaner fuels."

The project also involves technical adjustments to Repar furnaces and boilers so that they can be fueled by refinery gases with lower sulfur content. In addition, it aims to expand and modernize waste treatment plants to make them more efficient, an upgrade that will save energy and reduce their sulfur and nitrogen oxide emissions, according to Oderich.

Repar, the country's fifth largest refinery, expects to get the environmental license needed for the project from the Paraná state environmental enforcement agency in December, thus allowing work on the project to begin in early 2006. A 1997 decree (No. 237/97) by Brazil's National Environmental Council (Conselho Nacional do Meio Ambiente, CONAMA) requires all industrial expansions and/or modernizations to receive an environmental license before those projects can begin.

This is the second refinery upgrade Petrobras has announced in the last two months. In July, it announced a five-year plan to spend US \$800 million to remove impurities from refined products and reduce wastewater and air emissions at the Henrique Lage Refinery (Revap), the country's fourth-largest refinery.

AFRICA

79. South Africa to Target Top 50 Air Polluters

On June 20th, South African Minister for Environmental Affairs and Tourism Marthinus van Schalkwyk announced a new initiative to identify the country's top 50 air polluters and to overhaul the system of air pollution permits during his keynote address at a provincial sustainable development conference in Cape Town. The so-called Atmospheric Pollution Prevention Act (APPA) Review Project will seek to help both industries and local air quality licensing authorities prepare for the new National Environmental Management: Air Quality Act [No. 39 of 2004] that will be phased in beginning Sept. 1.

The APPA Review Project is aimed in particular at equipping local and provincial authorities to issue new permits using the more stringent criteria outlined in the Act, according to Peter Lukey, who is chief director for regulatory services at the Department of Environmental Affairs and Tourism.

Lukey said the department was working to determine the 50 highest priority polluters from a pool of 4,000 existing permits. Consideration will be given to the volume and toxicity of pollution and the proximity of industries to residential areas, he said. These "top polluters" could include either specific companies or entire industries if appropriate, he said.

The Act specifies new criteria such as in-line air quality monitoring and fence-line ambient air quality monitoring that are absent in the current Atmospheric Pollution Prevention Act, which dates from 1965.

Lukey said that the department expects to begin the permit review process within the next few months and hopes to have the first batch of amended permits completed within a year.

Some provisions of the new Act are set to take effect Sept. 1, including a new national framework for air quality management; new national, provincial, and local air quality and emission standards; the appointment of new air quality officers; and the designation of pollution hot spots as "national priority areas."

Van Schalkwyk announced earlier this month that he intends in September to declare a heavily polluted area near Johannesburg known as the Vaal Triangle as the country's first "national priority area." This designation will require local industries and authorities to submit an air quality management plan to the minister within a year outlining how the area will bring itself in compliance with air quality standards.

The Act authorizes the minister to ensure that the plan is implemented and to set penalties for failure to comply. Lukey said that this provision of the act is particularly important because it will enable authorities to concentrate their resources in areas with the worst problems and to implement cutting-edge airshed management plans that address all the various sources that contribute to pollution in a specific area.

80. KwaZulu-Natal to Monitor Air Quality in Five Hotspots

While the rest of the world grapples with the intricacies of the Kyoto Treaty to reduce greenhouse emissions, the KwaZulu-Natal (KZN) government is flexing its own muscles. Provincial Agriculture and Environmental Affairs MEC, Prof. Gabriel Ndabandaba has officially opened five new air quality monitoring stations.

"Too many industrial incidents such as the recent ammonia leak in Richard's Bay and emissions from other refineries are compromising the health of civil society. Polluters will face the full might of the law," he warned.

The stations, which cost R5 million, are situated in emission "hotspots" in Newcastle, Estcourt, Empangeni, Mandeni and Port Shepstone.

In addition to collecting air quality data, the stations will provide a clearer picture of who is polluting where, and what punitive steps should be taken to deal with them.

South Africa's new national Environmental Management Air Quality Act, which replaced the Atmospheric Pollution Prevention Act of 1965, introduces far more severe penalties for offences.

Prof Ndabandaba said government spent close to R4 billion annually dealing with health problems related to air pollution.

The 24-hour operational stations will monitor four critical pollutants, namely sulphur dioxide, particulate matter, nitrogen oxides and ozone. Wits University Climatologist, Dr Stewart Piketh, will generate data daily for a public website.

Prof Ndabandaba also announced that his department had embarked on a Vehicular Emission Strategy to curb vehicle emissions as part of a strategy to phase out leaded petrol by 2006. The removal of benzene and other fuel additives was also being considered, he said.

He urged communities most affected by toxic emissions such as in Mandeni and parts of the south coast to ensure that they acted as the eyes and ears of government on the ground.

81. Report Warns Africa Faces Disaster Without More Help

Africa already bears the brunt of the effects of climate change and faces unprecedented disaster unless wealthy countries make deep cuts in greenhouse gas emissions and offer more support for sustainable development on the continent, according to a report published June 20. The report, *Africa: Up in smoke?*, called for dramatically increased support for small-scale agriculture, saying large-scale farming that uses expensive and energy-intensive inputs will be vulnerable to fuel price increases and further add to the problem of climate change.

Prepared by a coalition of aid and environmental organizations for the New Economics Foundation, a London-based think tank, the report also said wealthy countries must progressively raise their commitments to cut greenhouse gas emissions to put them on track for reductions of 60 percent to 80 percent by 2050.

All leading industrialized nations that make up the so-called Group of Eight "should commit to achieving caps on emissions at a national level that are compatible with a fair global solution that is rooted in human equality and capable of stopping dangerous climate change," it said.

The report also recommended that strategies focus on local needs in African countries because effective responses to climate change will differ depending on local circumstances. It stressed that a "one-size-fits-all" approach to climate change mitigation is unsuited to African development.

It also recommended that Africa receive assistance to "leapfrog 'dirty development.'" "Exploitation of fossil fuels does little for the development or security needs of African people, and international donors and finance institutions should switch investment to the promotion of access to renewable energy sources, the report said.

The report's publication was timed to coincide with preparations for the G-8 Summit in Gleneagles, Scotland, July 6-8.

82. South African Government Announces Steep Petrol Price Hike

The South African government has announced that the petrol price will go up by five percent. The Department of Minerals and Energy said that the price of petrol is to increase by 27 cents a liter from 5.35 rand (81 US cents) to 5.62 rand (85 US cents).

The wholesale price of diesel with 0.3 percent sulfur will rise by 16 cents a liter and that with 0.05 percent by 17 cents a liter.

Factors influencing the price of fuel included increases in the average international product prices of petrol and diesel and changes in the rand/US dollar exchange rate during the review period (July 1 to 28), the department said in a statement.

From August 3, unleaded 95 octane petrol in Gauteng province will cost 5.66 rand (85 US cents), leaded 93 octane 5.62 rand, and leaded 97 octane 5.69 rand (86 US cents) a liter.

While the wholesale price of diesel is regulated, the retail price is not, and the actual cost per liter could vary from filling station to filling station.

MIDDLE EAST

83. Israel's Knesset Gives Preliminary Approval To New Clean Air Act

Israel's parliament, the Knesset, gave its first reading July 20 to the Clean Air Act, which represents a major new legislative effort aimed at reducing air pollution and improving air quality in Israel. The bill has now been sent to the Knesset Economics Committee for discussion and approval, and must still pass several additional legislative hurdles before becoming law. The private-members' bill enjoys the support of the government.

The Act aims to unify Israel's weak and fragmented air quality protection laws. It contains standards for a wide variety of pollutants and outlines procedures for monitoring and assessment. The legislation would concentrate enforcement powers in the hands of the Environment Ministry. It would also mandate the release of information regarding polluters.

The new law was drafted by the Israel Union for Environmental Defense, a nonprofit organization, and was spearheaded by the Knesset's environmental caucus, led by Knesset Member Omri Sharon, Prime Minister Ariel Sharon's son and a member of his Likud party.

Omri Sharon, in presenting the bill to the Knesset, said that the draft law would allow private citizens to sue polluters in class action suits. He also said the bill would raise fines for polluters and provide incentives to reduce pollution.

He noted that there is a direct connection between air pollution and health problems such as asthma, heart disease, and cancer, and that research shows that 1,000 people die each year in Gush Dan, the greater Tel-Aviv metropolitan area, as a result of air pollution.

"Approval of this bill will constitute an important step toward cleaning up the air in Israel," Sharon said.

According to the explanatory note attached to the draft bill, air pollution is one of the most serious environmental problems in Israel. The note outlines the main elements of the proposed legislation. It states that the act would grant the Environment Minister complete authority and responsibility for preventing air pollution and for setting and enforcing standards for emissions from vehicles, industry, and power plants.

The draft bill also proposes that the minister present to the Knesset a national program for reducing air pollution nationwide.

The bill also calls for setting up an air pollution forecast system that would warn the public of poor air quality. The bill calls for complete transparency of all information regarding sources of pollutants, their amount, and whether they conform to standards.

The legislation also proposes setting up a national laboratory that would specialize in air quality and issue a yearly report.

84. Shifting Gears in Egypt

Optimism continues to grow in the automotive industry in Egypt, although uncertainty over the future of protectionist tariffs has left some importers and manufacturers without a clear strategy. Since dramatic cuts in tariffs were announced as part of a larger package of customs reforms last September, there has been growing optimism in the automotive industry that a long-awaited sales boom is around the corner. That's why importers and local assemblers alike aren't so much loudly bellowing for reform today, the way they have for the past decade, as they are bemoaning the fact that advocates of trade liberalization and industrial reform in the Nazif government have yet to lay out a clear timetable for what reforms will hit their sector and when.

Still, for first time in recent memory, automotive industry players have something for which to be thankful. As part of the package of customs reforms announced in September, the Cabinet slashed duties on imported cars (called completely built up vehicles more on the jargon in a moment) with engines in the 1.3 to 1.6 liter range from 104% to a mere 40%.

The move cut the average retail price of a car in that range by approximately LE 25,000.

Tariffs on cars with engine capacities of 1.6 liters and above remain subject to 140% duties. Sales of cars with engines 1.6 liters and larger account for only 10% of the

domestic market, making it easy for the government to consider them, like liquor, to be luxury goods. If you can afford a car that large, the reasoning goes, you can afford to pay 140% duty on it.

While clearly hoping for more, local industry players, who either solely import or for whom imports are a component of a mixed import-and-assembly business, welcomed the change in the hope it might further spur a recovery in sales that began at the end of 2003 and roared to life last year.

Although spurred more by growth at the higher end of the market as a result of generally better economic performance last year than by September's tariff cuts, 2004 was a good year for importers and local manufacturers alike.

According to the Automotive Marketing Information Council (AMIC), an industry body representing both manufacturers and importers, sales of passenger cars rose by 7.8% between 2003 and 2004, rising from 52,373 to 56,464 units. The growth rate for 1.5-1.6 liter passenger cars underscores the effect of the tariff cuts: The rate climbed from 28% in 2003 to 35% last year.

For the market year 2003-2004, the number of total vehicles sold (a figure that includes passenger as well as commercial vehicles) jumped from 70,834 to 73,698, a 4% increase. The turnaround is particularly impressive in view of the consistent drop in sales from 1998 to 2002, which came as a result of recession, the devaluation of the Egyptian pound against the US dollar and high tariffs, all of which made imports prohibitively expensive.

The outlook for this year remains mixed. While the September tariff cuts increased sales opportunities for those assembling 1.6 liter or smaller vehicles in Egypt, but companies dealing only with imported vehicles in that range such as Toyota are temporarily struggling to keep pace. Most consumers were relieved to hear of the cut in duties, but in the first month after the announcement was made, many prospective buyers decided to wait and see whether the Nazif government would reduce tariffs further or cut duties on cars with larger engine displacements.

With the money available for them to buy, for example, a car with a 1.3-liter engine, many buyers found they were suddenly able to move up to a 1.5 or 1.6 liter car for the same price; and many were hoping for more.

After the period necessary for CBU importers to restock at the lower tariff, though, these businesses stand not only to make a killing but may also have the power to spark off a further round of price cuts by suddenly being on a more competitive footing with local assemblers.

Orders on these new cars are already putting the imported car sector on an upswing.

A factor sure to play into the hands of importers already benefiting from cheaper small-engine vehicles is the rising price of gasoline. A more costly 92-octane form of gasoline has been introduced, which at LE 1.4 per liter is about 40% more expensive than the 90-octane variety. It is believed that the government has engineered a de facto price increase and that the 90-octane gas will be nearly phased out at a time when oil prices are topping \$50 a barrel.

To save on the cost of gas, consumers may move toward more fuel-efficient cars.

With the increase in gasoline prices, as well as the new plan to impose standard-quality metered taxi cabs with fares starting at LE 3 and the threat of tighter regulation for the taxi trade as a whole, the government seems intent upon bringing the automotive industry and the condition of cars on the road up to par with at least the rest of the Arab world.

Under GATT, Egypt will have to phase out or reduce tariffs to levels consistent with those imposed by other nations, which typically fall in the 0-40% range, and phase out import quota restrictions.

Industry leaders hope the local market will, in the long term, adopt price scales in line with international norms, making them better able to compete not only with neighboring competitors, most notably the United Arab Emirates, but with other regions as well. "I think that by the year 2012, everything will come to international prices," says Toyota's Masrouga. "But I hope [it will happen] before that, that by 2010 the cars in Egypt will be the same price as the international [market]."

But with any increase in sales, there will be yet another problem that the government has yet to address, that of already congested urban centers like Cairo and Alexandria becoming even more congested and polluted. According to a 2002 World Bank report, damages caused by pollution are costing Egypt an estimated 5% of its gross domestic product, and as anyone living in the country can tell you, the level of pollution has not gotten any better since then.

The nation still lacks a practical vehicle emissions testing system, which would require coordination between nearly a dozen competing ministries and authorities. A pilot project to do roadside and licensing-time emissions testing has low public awareness, and there are few signs it will soon be expanded.

Egypt is also one of the worldwide leaders in traffic-related deaths. According to a report released by the World Health Organization in 2004, more than 4,700 people died on the nation's roads, while just 363 were killed in road accidents in Kuwait. Today, the WHO estimates that there are 6,000 road-related fatalities and 26,000 injuries per year, in addition to tens of thousands of accidents, every one of which further weakens into the economy.

Although additional customs cuts may help revive Egypt's ailing economy by getting more cars off the boat and onto roads, the government has not made any compensatory push to invest in road infrastructure or environmental protection, recent discussion of expanding the Cairo corniche and the completion of the new road to Ain Sokhna notwithstanding.

GENERAL

85. Participants at IEA Seminar Predict Growth In Ethanol Use

Liquid ethanol could replace 10 percent of world gasoline use by 2025, leading to an important drop in global greenhouse gas emissions, according to conclusions of a June 20-21 biofuels seminar at the International Energy Agency. However, participants at the seminar said that is only likely to occur if the world's industrialized countries open their markets to biofuel producers in developing countries and step up research on the next generation of biofuel technology.

The two-day seminar--organized by the government of Brazil, one of the world's leading producers of liquid ethanol, and the United Nations Foundation--offered high-level government officials from industrialized and developing nations a forum for discussing the complex policy framework surrounding biofuels production and use.

Participants agreed that farm policy, energy policy, trade policy, and environmental policy would all drive the evolution of the biofuel sector in the coming years.

Developing countries like Brazil see biofuels production as a potential boon for their agriculture sector, as well as a new means of providing fuel for cooking or other domestic uses to poor populations.

Industrialized countries, on the other hand, said they view liquid biofuels such as ethanol or biodiesel as a potential means of limiting oil imports and reducing greenhouse gas emissions from the transport sector.

"This seminar has shown that there is a unique opportunity to foster South-South, as well as North-South cooperation to expand biofuels production and use," IEA Deputy Executive Director William Ramsey said during a briefing June 21.

"Our interests overlap with those of developing countries," Ramsey said, adding that "each country has to react from its own economic context."

Sergio Silva do Amaral, Brazil's ambassador to France, agreed there could be a convergence of interests on biofuels between rich and poor nations, but insisted that the industrialized countries' use of excise taxes and tariffs is pricing Brazilian biofuels out of the market. "It makes no sense to us that the rich countries have set up such large barriers to trade in what could be an environmentally and economically significant new market," Silva do Amaral said.

In ongoing multilateral trade talks, Brazil plans to continue pushing for a reduction in barriers to market access for its sugar cane-based liquid ethanol, Silva do Amaral said, suggesting Brazilian farmers are ready to "double" their sugar production for biofuels when trading conditions are right.

Melinda Kimble, executive vice-president of the U.N. Foundation, said the Brazilian ethanol production chain, which uses sugar cane waste as a principal fuel source, offered an environmentally sound model for major sugar cane producers. She cautioned, however, that more monitoring and surveillance was necessary to fully understand the environmental impacts of other types of biofuel production.

Kimble also noted a further incentive for North-South cooperation--the possibility that large companies in industrialized countries could earn carbon dioxide emission reduction

credits under the Kyoto Protocol's Clean Development Mechanism by funding biofuels projects in poor countries.

Participants agreed that any radical growth in the use of biofuels would require new research and development into new bio-refining technology and greater development of flexible-fuel vehicles, which permit the use of any mixture of ethanol and gasoline, offering consumers a true choice as to which fuel to use.

Participants in the June 20-21 seminar urged the IEA to further its research, looking particularly at:

- the macroeconomic interaction of fossil fuel and bioenergy markets;
- development of methodologies for cost/benefit analyses at the national level;
- development of best practices for environmentally sustainable production; and
- technology adaptation and transfer to meet the needs of developing countries.

86. G-8 Agree to Stabilize Greenhouse Emissions But No Specifics

Leaders from the Group of Eight industrialized countries concluded their latest summit July 8 by issuing a communiqué that included commitments to stabilize greenhouse gas emissions and to promote clean technologies. The communiqué, titled *The Gleneagles Communiqué: Climate Change, Energy, and Sustainable Development*, did not reflect any major developments since previous G-8 positions on the issue, although it did give renewed emphasis to the importance of cooperation and assistance to developing countries through technology transfer.

At the close of the summit, the G-8 also issued a 10 page action plan pledging to improve energy efficiency, to encourage the use of lower-emission vehicles, to promote research and development, to manage the impact of climate change, and to tackle illegal logging.

The G-8 countries are Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States. Also attending the climate change and energy sessions of the summit were leaders from the "Group of Five" countries--Brazil, China, India, Mexico, and South Africa.

The final G-8 declaration noted that "climate change is a serious and long-term challenge" and that while uncertainties remain in the world's understanding of climate science, "We know enough to act now to put ourselves on a path to slow, stop, and then reverse the growth of greenhouse gases." It added that the G-8 leaders will "act with resolve and urgency to meet objectives of reducing greenhouse gas emissions," and that they reaffirm their commitment to the United Nations Framework on Climate Change and to its objective of stabilizing greenhouse gas concentrations "at a level that prevents dangerous anthropogenic interference with the climate system."

The "action plan" issued with the communiqué contained a series of pledges to promote energy efficiency, to diversify energy supplies, and to promote cleaner burning of fossil fuels. The plan also included statements of intent to accelerate research into carbon

sequestration technology, to promote renewable energy supplies, and to give financial support to "the transition to cleaner energy."

The G-8 nations that have ratified the Kyoto Protocol -- all members except the United States -- pledged to "work to strengthen and develop" market mechanisms, such as international emissions trading, and to invite multilaterals "to increase dialogue with borrowers on energy issues."

Neither document contained emissions targets, timetables for progress, or concrete commitments to fund clean energy technology.

87. U.S. Gets More Asian Air Pollution Than Thought

Air pollution blows across the Pacific Ocean from Asia to North America far more regularly than was previously thought, says a new UC Davis study. The findings are likely to affect attempts to clear hazy skies over much of the U.S. and to understand how growing Asian air pollution will influence global climate change.

"Occasional, large-scale Asian dust storms had led us to believe that this pollution traveled east in infrequent, discrete events," said UC Davis atmospheric scientist Steve Cliff. "As it turns out, Asian pollution, particularly in the Sierra-Cascade range and elsewhere in the American West, is the rule, not the exception."

That may make it hard to meet air-quality goals set by the federal Clean Air Act, Cliff said. "Assuming Asia continues to develop as predicted, with commensurate energy needs from combustion, we will continue to increase our 'background' haze in the US," he said.

It also may change the prevailing notions of long-range aerosol transport, which are used by scientists trying to predict climate change using computer models, he said.

The lead author on the new study is Tony VanCuren, an atmospheric scientist at UC Davis and the California Air Resources Board. The co-authors are Cliff; Michael Jimenez-Cruz, a former UC Davis student and now a researcher at the Advanced Light Source at Lawrence Berkeley National Laboratory; and Kevin Perry, a former UC Davis postdoctoral scholar, who is now an assistant professor of meteorology at the University of Utah.

The study appeared in a recent issue of the Journal of Geophysical Research. It was based on air samples collected and analyzed during the 2002 Intercontinental Transport and Chemical Transformation experiment (ITCT 2K2), sponsored by the U.S. National Oceanic and Atmospheric Administration (NOAA).

That experiment used innovative air-sampling machines developed by UC Davis' DELTA research group (for Detection and Evaluation of Long-Range Transport of Aerosols). The new samplers allow researchers to collect airborne particles continuously and to analyze them in short time steps and over multiple size ranges. That made it possible to do the new analysis, which resolves relationships between pollutants and weather in much greater detail.

88. Six-Nation Climate Pact Announced

The Bush administration has unveiled a six-nation pact that promotes the use of technology to cut greenhouse gas emissions. The deal between the United States, Japan, Australia, China, India and South Korea will build on existing bilateral agreements on technology sharing. It includes no Kyoto-style caps on emissions.

President George W. Bush said in a statement the Asia-Pacific partnership, which will be formally introduced in the Laotian capital Vientiane, would address global warming while promoting economic development. The approach of looking to technology for solutions to global warming was emphasized by Bush at the Group of Eight summit in Scotland when he called for a "post-Kyoto era."

The United States, which creates the biggest share of greenhouse emissions, and Australia are the only developed nations outside Kyoto. But Japan, China, India and South Korea have ratified Kyoto, which demands cuts in greenhouse emissions by 5.2 percent below 1990 levels by 2008-2012.

Jim Connaughton, chairman of the White House Council on Environmental Quality, said there was no attempt to undermine Kyoto. He said that the countries in the Asia-Pacific pact together represent about 50 percent of the world's greenhouse gas emissions and a "substantial" portion of the world's gross domestic product.

Australian Environment Minister Ian Campbell said the countries had been quietly working on the pact for months.

The process will get off the ground when US Secretary State of State Condoleezza Rice and Secretary of Energy Sam Bodman meet their counterparts from the other signatory countries later this year.

Initial reactions as reported by Reuters were mixed, as summarized below.

AUSTRALIAN PRIME MINISTER JOHN HOWARD

"This is an historic agreement for the cause of reducing greenhouse gas emissions. The fairness and effectiveness of this proposal will be superior to the Kyoto Protocol."

"It demonstrates the very strong commitment of Australia to reducing greenhouse gas emissions according to an understanding that it's fair in Australia and not something that will destroy Australian jobs and unfairly penalise Australian industries."

U.N. ENVIRONMENT PROGRAMME EXECUTIVE DIRECTOR KLAUS TOEPFER

"It is important to mention that this new initiative is not a substitute for the Kyoto Protocol, its legally binding emission reductions and its various flexible mechanisms.

"We also urgently need more investment in climate-vulnerable developing countries to help them adapt to the climate change that is already underway."

STEVE SAWYER, CLIMATE POLICY EXPERT AT GREENPEACE

"It doesn't have anything to do with reducing emissions. There are no targets, no cuts, no monitoring of emissions, nothing binding," he said.

"It's a technology transfer and trade agreement and if it results in the better distribution of some of the better technology then that can help," he said, but added the pact was not a credible alternative to Kyoto.

ROBERT ZOELLICK, US DEPUTY SECRETARY OF STATE

"We are not detracting from Kyoto in any way at all. We are complementing it.

"Our goal is to complement other treaties with practical solutions to problems."

JAVIER SOLANA, EUROPEAN UNION FOREIGN POLICY CHIEF

"It has nothing to do with other, much bigger initiatives, which are of a global nature. This doesn't have an application to be global."

CHINESE MINISTRY OF FOREIGN AFFAIRS STATEMENT

"This pact has no power for legal restrictions. It is a complement to the Kyoto treaty, not a replacement.

"We hope countries signing the pact will take effective measures, strengthen technological research and development, exchange and expand cooperation and forge a new path for effectively fighting climate change and continuing economic growth."

CATHERINE FITZPATRICK, GREENPEACE ENERGY CAMPAIGNER

"All the evidence around the world shows that voluntary schemes don't work, which is one of the reasons that the Kyoto protocol became a legally binding treaty.

"I think it's a tragedy that we have the Australian government and the US government doing whatever they can to undermine international action on climate change."

CLIVE HAMILTON, DIRECTOR OF THE AUSTRALIA INSTITUTE RESEARCH CENTRE

"The main beneficiaries will be Australian coal companies, some of the world's biggest greenhouse polluters. It's a Machiavellian pact."

ALEXANDER DOWNER, AUSTRALIAN FOREIGN MINISTER

"The key to solving these problems is going to be technology. Cleaner technologies, making those technologies work better, making those technologies more economic.

"These things are going to be a lot more effective over time than just political declarations."

CHO HAN-JIN, SOUTH KOREAN ENVIRONMENT MINISTRY OFFICIAL

"We plan to increase the number of countries in the pact by the end of the year. We aim to announce a charter along with the partners by the end of this year with details on technology areas where cooperation is needed."

AMIT KUMAR SINGHAL, INDIAN ENVIRONMENT MINISTRY OFFICIAL

"There is nothing secret about in this partnership. India is a member of the Kyoto Protocol under which we are not (legally) bound to reduce emission of greenhouse gases.

Yes, under this new pact we have no target dates to cut emissions."

LEE SANG-HUN, OF THE KOREAN FEDERATION FOR THE ENVIRONMENTAL MOVEMENT

"Efforts to form the new pact raise the possibility of hurting the basic framework already agreed, which is the Kyoto Protocol and could be controversial."

PHIL GOFF, NEW ZEALAND FOREIGN MINISTER

"How to deal with the problem of flatulent cows and sheep? That is a tougher problem because the science has to be found to enable us to do that."

89. Air Pollution Causes Coronary Heart Disease In Women

Women who live in areas with greater air pollution have a higher susceptibility of developing and dying from coronary heart disease (CHD), according to a multi-decade study accepted for publication in the peer-reviewed journal *Environmental Health Perspectives* (EHP). When ozone combines with particulate matter (PM), women's risk of fatal CHD can increase up to twofold. According to the authors, this is the first study to return gender-specific results on this topic.

Researchers found statistically significant increases in the relative risk of fatal CHD in females as pollution levels increased when they analyzed PM levels alone. The risk estimates were strengthened when the study also considered ozone, and strengthened further when only postmenopausal females were included.

From 1977 to 1998, researchers obtained data from 3,239 nonsmoking, non-Hispanic white adults who participated in the Adventist Health Study on the health effects of smog. Upon enrollment, participants completed a comprehensive questionnaire detailing health status, lifestyle, and education. Researchers used data from subsequent questionnaires in 1977, 1987, 1992, and 2000 to obtain follow-up information related to residence and work location histories as well as essential characteristics regarding relative exposure to ambient air pollutants, occupational fumes and dust, and indoor pollutants such as secondhand tobacco smoke.

Subjects lived within an air shed adjacent to one of nine California airports with available visibility measures. None had any history of CHD, stroke, or diabetes.

During the 22-year follow-up, there were 155 fatal CHD cases in females and 95 among males. According to the article, those who died of CHD were older at baseline, had fewer years of education, and were more likely to have hypertension. Further, a larger proportion of the females were postmenopausal, and of these, fewer had undergone hormone replacement therapy.

Based on past research, the authors speculate that air pollution may affect females more than males because females may have a greater deposition of inhaled particles in their lungs, leading to increased health risk due to inflammatory responses to oxidative stress. They also theorize that females may be more sensitive to airborne pollution since they have fewer red blood cells than males, and thus may be more sensitive to the toxicological influences of air pollutants.

This study adds to the body of evidence supporting the adverse effects of exposure to fine particulates, and is one of the few to examine that exposure in the long term.

According to the study authors, these findings are in line with findings by others of an effect of PM on cardiopulmonary mortality, but are of greater magnitude, possibly because the outcome was limited to fatal CHD with better control of confounding factors such as alcohol and tobacco.

The lead author of the study was Lie Hong Chen of the Department of Epidemiology and Biostatistics at Loma Linda University. Other authors included Synnove F. Knutsen, David Shavlik, W. Lawrence Beeson, Floyd Petersen, Mark Ghamsary, and David Abbey. Funding for the research was provided by the U.S. Environmental Protection Agency.

90. Childhood Cancers Strongly Linked To Air Pollution In Early Life

Childhood cancers are strongly linked to pollution from engine exhausts, concludes research in the *Journal of Epidemiology and Community Health*.²

The postal addresses of 22,500 children who had died of cancer in Britain between 1955 and 1980 were linked to emissions hotspots for specific chemicals. These were identified from published maps of atmospheric pollution levels. The chemicals included carbon monoxide, particulate matter, nitrogen oxides, 1,3-butadiene, benzene, dioxins, benzo(a)pyrene, and volatile organic compounds.

Emission sources, including hospitals, bus/train stations, heavy transport hubs, and oil installations, were located using maps and information downloaded from the internet.

The expected deaths from childhood cancer were plotted against the actual deaths, and the postcodes where they had been born, lived, and died were used to calculate distances from the particular hotspots and emissions sources.

The calculations revealed an excess risk of cancer for children living within 0.3 kilometers of a chemical emissions hotspot and within 1 km of an emissions source, such as a transport hub.

² Oil combustion and childhood cancers *J Epidemiol Community Health* 2005; 59: 755-60

1,3-butadiene and carbon monoxide, both of which are produced by vehicle exhausts, and particularly diesel engines, were among the primary culprits, the findings suggested.

When combined with close proximity to an emissions source, such as a bus or coach station, a child was at 12 times the risk of dying from cancer.

The author suggests that the exposure of a child in the womb and soon after birth to atmospheric pollutants is likely to be the critical period. And he goes on to say that accepted atmospheric safety levels for 1,3-butadiene in the workplace are probably unlikely to protect unborn children from developing cancer. More controls should be placed on the sources of emission, he says.

91. New ICF Report Says Refining Limits Are Crimping Fuel Supply

Lack of refinery capacity may become a greater fuel supply problem than availability of crude oil over the next 5-10 years, said ICF Consulting Group Inc., Fairfax, Va in a new report.³

"The crux of the problem is that new global refinery capacity investment is lagging behind demand," said Zeta Rosenberg, an ICF Consulting senior vice-president and fuels expert. "Historically, the oil industry has been able to squeeze out some additional capacity, but the trend increases of the past may not be enough to keep up with forecasted demand." She said, "Since mid-2004, refinery margins have stayed very strong, and the outlook appears to be the same for the foreseeable future. If supply does not materialize to meet the demand forecast, however, there could be significant negative impacts on global economies and world demand."

Global refinery capacity has decreased to 103% of total oil demand in 2004 from 109% in 1990 and 107% in 2000. "This situation has been overlooked due to the overall oil price explosion and world crude oil spare production capacity issues," said ICF Consulting.

It noted that the International Energy Agency in Paris forecasts growth in oil demand of more than 5 million b/d by 2010. "Industry has typically expanded existing refineries only marginally every year through low cost expansions (referred to as 'capacity creep'), but capacity creep may become tougher as the world moves to much lower sulfur levels in products in order to meet environmental regulations," the report said.

In the mid-1980s, the oil industry suffered from a surplus of refinery capacity. "Weak refining margins made investment in new capacity very difficult to justify," said ICF Consulting. Since 1990, however, the capacity surplus has been slowly wrung out of the global system. "Environmental regulations have contributed to refinery closures, and the strong and steady growth of global oil demand has helped increase refinery utilization," the firm said. "Growth in the demand for clean products—gasoline and particularly diesel—is being fueled by the dramatic rise in the economies of the Far East. These trends are on a collision course."

³ The Emerging Oil Refinery Capacity Crunch: A Global Clean Products Outlook

The 'problem' fundamentally comes down to supply and demand, except that the supply and demand involved is a global concern, not just a domestic phenomenon. There is really nothing terribly brilliant in that conclusion, but there is a concern that the world, and the United States, are well on a path that may be very difficult to correct.

In large measure, the high level of energy prices today has been driven by concerns about the availability of spare crude oil production capacity to meet growing global demands for oil products, and the potential for supply disruptions in crude production. However, ICF Consulting believes that in the past year, and over the next roughly five-year period, the ability to meet forecast demands for oil will be driven by refinery capacity issues, not crude availability.

A. Spare Crude Oil Production Capacity

This paper analyzes trends in global product demands and refinery capacity, and highlights how the refining 'spare capacity' has eroded, in particular in the last few years. It identifies the potential need for additional capacity to meet projected global demands, and draws conclusions on the global outlook to meet those demands with expanded refinery investment.

B. The Capacity Crunch

The growth in global demands for gasoline and diesel, and the regulatory actions that are requiring lower and lower sulfur content in these products, is creating a mismatch between the demand for clean products and the availability of refining capacity to produce the products from available crude oils, according to ICF. This 'capacity crunch' will change the historical playing field for international crude and product supply and trade, and create strong and sustained margins for refiners, higher prices, and potentially supply shortfalls for consumers.

92. Toyota Pushes Industry To Embrace Fuel Economy, GHG Controls

A top Toyota executive is pressing the auto industry to embrace proactively both improved fuel economy and reduced greenhouse emissions, in advance of regulatory mandates, in order to maximize the industry's financial health. In a radical speech delivered earlier this month to a group of automotive industry executives, Toyota Motor Sales president and chief operating officer Jim Press exhorted fellow executives to work together in developing a positive response to the major issues confronting the industry.

"Think what we could do with issues like CAFE [Corporate Average Fuel Economy] and global warming if we join hands and develop our own vision for the future, rather than waiting for regulators to do it for us. Let's drive the process and not get run over by it," Press told his audience.

In the speech at a management briefing seminar in Traverse City, MI, Press said: "It's high time we stop being the 'against' industry," adding: "Let's start being for something instead of against everything."

In the speech, Press called on the industry to "make a new pact with society, a pact to take a stand and be part of the solution, not the pollution." He explained the call by

saying: “Only by uniting and becoming part of the solution can we sustain our industry and guarantee our lasting success. It’s not an ‘us vs. them’ world anymore..., it’s a ‘partner to partner’ world where we all contribute to the greater good because it is in all of our interests.”

Toyota sees itself as an industry leader, not just in terms of sales, but technology as well. Press predicts: “A new wave of hybrids is coming to market from Toyota and other automakers and they will change the way people think about automobiles.” In a subtle jab at some Detroit automakers, who until fairly recently have dismissed hybrids as expensive niche market vehicles, Press said: “Americans like doing the right thing, and they love doing the smart thing. That’s why hybrids are a hit, and that’s why they are here to stay.” He noted the goal set by Toyota’s new president is to sell 600,000 hybrids annually in the U.S. and to meet a worldwide goal of 1 million sold by early in the next decade.

Press suggests “a meeting of top automotive leaders in a neutral location where we all leave our company name badges at the door. That way, we can engage in candid dialog, unify, and come out with a positive direction.”