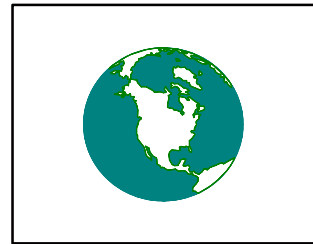


Michael P. Walsh
3105 N. Dinwiddie Street
Arlington, Virginia 22207
USA
Phone: (703) 241 1297 Fax: (703) 241 1418
E-Mail mpwalsh@igc.org
<http://walshcarlines.com>



CAR LINES

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EUROPE

1. EU Maintains Tough Line on Air Quality Derogations

The European Commission has continued its tough stance against further delays in meeting EU air quality standards, as it rejected 92 out of 97 requests for extended deadlines in various zones in Bulgaria, Poland and the UK. Almost all the requests relate to limits on concentrations of particulate matter (PM10) that should have been met in 2005. The commission approved the extension of PM10 limits in five zones in Poland until 2011, but all other requests were rejected.

The EU executive said it rejected the requests because of insufficient data or because abatement measures outlined by the countries could not guarantee that the standards would be met within the extended deadline.

In the UK, all areas except the Greater London zone complied with EU standards in 2008. The air quality plan for this zone did not meet the conditions for a time extension, the commission explained.

Bulgaria, Poland and the UK must now either re-apply for extensions citing new evidence, or comply with air quality standards in the shortest possible time to ward off infringement proceedings. Legal proceedings are ongoing against 10 member states for failing to comply with the PM10 limits.

Since 2005, London has exceeded European Union guidelines for airborne particles, or particulate matter, which come mostly from tailpipe emissions from diesel-powered vehicles. The pollutant causes heart and lung diseases and may be responsible for 3,000 early deaths a year, according to a report by the city's legislative assembly.

The commission ruled that the proposals put forward to improve air quality in the Greater London Zone – the capital has among the worst air quality in Europe – did not meet the "minimum requirements" for a time extension. The decision puts pressure on the London mayor, Boris Johnson, who has recently published a draft air quality strategy. He intends to scrap or delay until 2012 two key proposals in the government's submission for improving air quality.

The Department of Environment and Rural Affairs submitted an application for an extension until 2011 in late spring after Dimas began legal proceedings against the UK and nine other member states at the turn of the year. Today, he said the air quality plan submitted by the government "did not meet the minimum requirements of the directive for a time extension". "The 2008 EU air quality directive recognizes the difficulties some member states have experienced in meeting the standards for PM10 by the initial deadline of 2005 and allows the possibility of a limited time extension." However, the commission expects member states to clearly demonstrate that they are doing their utmost to comply with EU standards in the shortest possible time."

The government's proposals to Dimas, submitted in May, included the congestion charge and the third phase of the Low Emission Zone (LEZ), scheduled to be introduced next year to tackle the most polluting vehicles in London. The proposals clashed with plans put forward by Johnson, who earlier this year said he would scrap the western extension of the congestion charge. He also announced in his draft air quality strategy, published in October, that he would delay the third phase of the LEZ until 2012 in order to give drivers more time to adjust.

2. Serbia to Get Cleaner Fuels

The quality of fuel in Serbia could soon be on a par with that of its EU neighbors. At least, that's what Gazpromneft, the new owner of Serbia's largest oil and gas company, NIS, has pledged to do. This became possible after Gazprom's oil arm forked out €400 million in early 2009 to acquire the 51-percent stake in NIS (the acronym for Naftna Industrija Srbije), with the remaining 49 percent controlled by the Serbian government.

Earlier this year the Serbian company's total debt stood at almost €1 billion and at that point the new management faced a key challenge to optimize NIS' credit portfolio by converting short-term debts into mid-term with a lower interest rate. Gazpromneft decided to invest the bulk (€467 million) of its pledged €548-million investment into upgrading NIS' refining complex that includes Pancevo and Novi Sad refineries with the total capacity of 7.3 million tons per year. The remaining investment funds will be spent on environmental projects.

The highlight of the modernization program will be the construction of a light hydrocracking and hydrofining complex at the Pancevo plant. These units are intermediate links between primary and secondary crude oil treatments. The ultimate target is to boost the oil conversion rate by removing from the crude the maximum sulfur, mercaptans and other chemical compounds that negatively impact the end products in the refining chain.

The main supply route for the NIS refineries' feedstock (Russia's REBCO brand) runs via the Croatian port of Omisalj and then via land pipeline to the two plants in Serbia. At the same time, Serbia produces a small quantity of its own light, high-quality oil. According to NIS general director Kirill Kravchenko, the company plans to increase domestic oil output in 2010 by 10-14 percent. It is also studying the option of switching from REBCO to the light oil feedstock.

"We have spent a year developing the process flow for Brent or light oil," Kravchenko told Russian journalists at NIS' Novi Sad headquarters. "Such a switchover would boost our output of Eurodiesel and help us phase out leaded gasoline as soon as next year." In August, production of lead-free gasoline accounted for 80 percent of NIS' total oil product output.

On parallel tracks the company plans to slash its bitumen and fuel oil output rates. NIS currently holds one-third of the national gasoline market, one-third of the Eurodiesel market (up to 10 ppm sulfur content) and one-third of the D2 diesel fuel market (50 ppm sulfur content). In 2010 NIS will make an effort to meet 50 percent of Serbia's demand for Eurodiesel.

This year, following a minor-scale tech upgrade, NIS was able to launch Serbia's first domestic Eurodiesel production. The company already can produce 30,000-35,000 tons of Eurodiesel per month. The launch of an alkylation unit and a sulfolane-based aromatics extraction unit – both are scheduled in the next few months – would boost the output of high quality gasoline.

The hydrocracking and hydrofining complex construction kicked off on November 2nd. In 2012, with the units running at full capacity, NIS is expected to produce 638,000 tons of Eurodiesel per year.

Despite the company's efforts to modernize the plants and make high-quality gasoline more affordable for average consumers, fuel prices in Serbia remain among the highest in Eastern Europe. This is due to price-forming specifics linked to excise tax, which is also levied on VAT. The existing price formula "excise tax plus VAT" is the highest in the region.

NIS owns 483 gas stations in Serbia, controlling about 25 percent of the retail products market. The key competitor is LUKOIL-Beopetrol. In the longer-term, NIS plans to double its market share or (if Serbia joins the EU) increase its presence in compliance with EU requirements. At the same time, the company will strive to increase market share beyond Serbia's borders as it attempts to transform into a key regional player in the Balkans, targeting a 20-percent market share on the peninsula.

3. President Barroso Unveils His New Team

José Manuel Barroso, President of the European Commission, has announced the portfolio responsibilities for the next Commission. The President has held detailed consultations with all the Commissioners-designate in order to assign the right jobs to the right people. The President believes that this team can deliver the agenda for change he set out in the political guidelines he presented in September, following his nomination by all 27 Member States and before his approval as President of the next Commission by the European Parliament.

President Barroso said: "We have a European program, and now we have a European team. On the basis of the nominations by the Member States, I have sought to design a College which can generate fresh ideas and new momentum on the biggest challenges we face in Europe today. This College will implement the political guidelines that I presented to the European Parliament. I am confident that this College will be decisive in steering Europe towards recovery and a sustainable social market economy that works for the people. I have put together a strong Commission to fill the enhanced role of Europe, including on the world stage, provided by the Lisbon Treaty. One of the key tasks of this College will be to give life to the new opportunities provided by the Lisbon Treaty. The Commissioners-designate will present themselves in the hearings before the European Parliament in January. After the vote of consent of the Parliament, it will be time to start to work and to produce results for our citizens."

The new College will have 7 Vice-Presidents, including Vice-President Baroness Catherine Ashton who will, at the same time, be the High Representative of the Union for Foreign Affairs and Security Policy, following the entry into force of the Lisbon Treaty on 1 December next. Three of the Vice-Presidents will be women. The new College will have 27 members, including President Barroso, one from each Member State. It includes 9 women. The members of the College come from different political families, notably the European People's Party (EPP), the Progressive Alliance of Socialists and Democrats (S & D), and the Alliance of Liberals and Democrats for Europe (ALDE). 14 members, including the President, were already members of the outgoing College.

President Barroso has given a new look to the College of his second mandate. He has announced a number of new portfolios: Climate Action; Home Affairs; Justice, Fundamental Rights and Citizenship. He has reconfigured a number of other portfolios: Education, Culture, Multilingualism and Youth; Health and Consumer Policy; Industry and Entrepreneurship; Research and Innovation; International Cooperation, Humanitarian Aid and Crisis Response. There will be a new emphasis on inclusion in the Employment, Social Affairs and Inclusion portfolio, and a renewed focus with the Digital Agenda portfolio.

Responsibilities of the Commissioners-designate

- Joaquín ALMUNIA: Competition. Vice-President of the Commission.
- László ANDOR: Employment, Social Affairs and Inclusion.

- Baroness Catherine ASHTON: High Representative of the Union for Foreign Affairs and Security and Vice-President of the Commission.
- Michel BARNIER: Internal Market and Services.
- Dacian CIOLOS: Agriculture and Rural Development.
- John DALLI: Health and Consumer Policy.
- Maria DAMANAKI: Maritime Affairs and Fisheries.
- Karel DE GUCHT: Trade.
- Štefan FÜLE: Enlargement and European Neighborhood Policy. *
- Johannes HAHN: Regional Policy.
- Connie HEDEGAARD: Climate Action.
- Maire GEOGHEGAN-QUINN: Research and Innovation.
- Rumiana JELEVA: International Cooperation, Humanitarian Aid and Crisis Response. *
- Siim KALLAS: Transport. Vice-President of the Commission.
- Neelie KROES: Digital Agenda. Vice-President of the Commission.
- Janusz LEWANDOWSKI: Budget and Financial Programming.
- Cecilia MALMSTRÖM: Home Affairs.
- Günter OETTINGER: Energy.
- Andris PIEBALGS: Development.*
- Janez POTOČNIK: Environment.
- Viviane REDING: Justice, Fundamental Rights and Citizenship. Vice-President of the Commission.
- Olli REHN: Economic and Monetary Affairs.
- Maroš ŠEFČOVIČ: Vice-President of the Commission for Inter-Institutional Relations and Administration.
- Algirdas ŠEMETA: Taxation and Customs Union, Audit and Anti-Fraud.
- Antonio TAJANI: Industry and Entrepreneurship. Vice-President of the Commission.
- Androulla VASSILIOU: Education, Culture, Multilingualism and Youth.

The new Commission must gain approval from the European Parliament before it takes office for a term of office running until 31 October 2014. Commissioners-designate will appear in individual hearings before Parliamentary committees from 11-19 January. The vote of consent on the new Commission as a whole is foreseen to take place on 26 January. On the basis of the vote of consent, the Commission shall be appointed by the European Council. Then it can start working.

4. Hedegaard Becomes New EU Climate Commissioner

Danish climate and energy minister Connie Hedegaard will head up a new European Commission department dedicated to climate change, commission president José Manuel Barroso announced as he unveiled his new team of commissioners. Ms Hedegaard will deal with the EU's international climate strategy, Europe's emissions trading scheme and industrial emissions and ozone layer protection, including the integrated pollution prevention and control directive (IPPC).

The new commissioner will "promote the climate agenda both internally and externally," Mr. Barroso said. Ms Hedegaard had been a favorite for the post.

Research commissioner Janez Potočnik will replace Stavros Dimas as environment commissioner. "Environment is much more than climate change action", the commission

president pointed out. "Even before there was a climate action agenda, the action of the commission on environment was decisive." But the environment department has been significantly scaled down. In addition to climate and industrial pollution it will lose its biotechnology, pesticides and health unit to the health department and two civil protection units to the humanitarian aid department. Mr. Potočnik will be responsible for issues such as soil protection, water and air policy.

Mr. Barroso confirmed the transport and energy directorate would be split into two departments, with the pro-nuclear German Günter Oettinger in charge of energy. EU anti-fraud chief Siim Kallas will replace Antonio Tajani as transport commissioner. Mr. Tajani will become the new head of the industry department. Andris Piebalgs moves from energy to development and Máire Geoghegan-Quinn obtained the research portfolio.

Green MEP Claude Turmes criticized Mr. Barroso's decision to reshuffle all returning commissioners rather than keeping experienced ones in their posts. The commission president explained he did not want any of his commissioners to "get into a rut".

The European Parliament confirmed on Friday it would hold hearings on the new commissioners on 11-19 January with a final plenary vote on 26 January, paving the way for the new commission to take command in February.

5. Barroso Defines Priorities for New Commissioners

Climate commissioner Connie Hedegaard will be responsible for overseeing efforts to achieve the EU's CO2 target and to link its emissions trading scheme to other national cap-and-trade schemes, according to a mission letter written by European Commission president José Manuel Barroso. Her other responsibilities will include promoting low-carbon technologies and coordinating climate adaptation policy, including building on a white paper issued earlier this year. Work on technology and adaptation will be done in cooperation with other commissioners, said Mr. Barroso.

Mission letters were sent to all 26 commissioners, spelling out what Mr. Barroso expects them to deliver during his second term. A series of hearings with MEPs in January are an opportunity "to set out your ambitions for your portfolio" he says.

The EU's new green chief Janez Potočnik will "ensure that environment policy makes an important contribution to a greener economy". This means presenting action plans for eco-innovation, environmental technologies and the "next phase" of sustainable consumption and production. Mr. Potočnik's second priority will be halting biodiversity loss. He is expected to increase the resilience of ecosystems through air, land and water policies. Mr. Barroso does not mention plans for a new environment action program, a topic MEPs want to talk about.

Transport is "in need of a major overhaul... to meet our commitments on energy and climate change". Among other things, transport commissioner Siim Kallas should speed up the take-up of low-carbon technologies in the sector and re-align trans-European networks with climate goals.

Energy commissioner Günter Oettinger must "design and build broad-based support" for a long-term strategy to decarbonize energy supplies, including updating an existing energy efficiency action plan. He should also help develop smart grids and give "particular momentum" to meeting renewables targets.

6. DG Environment Could Be Substantially Weakened in Reorganization

No decision has yet been taken as to whether EU policy portfolios on pesticides and biocides will stay within the European Commission's environment department (DG environment) or move to the health and consumers department. It is also still unclear whether the environment department will lose responsibility for the Seveso directive on major accident hazards. The fate of these policy portfolios will be decided in January. A taskforce has been created to sort out the structure of the new commission.

Staff at the environment department will not start moving offices until MEPs approve the new commission on 26 January and the new team of commissioners confirms the transfers. The department will reportedly share an administrative service with the new climate directorate.

There is concern within the department that very limited resources will remain for addressing conventional pollutants from motor vehicles. Much of the vehicle expertise is expected to move to the climate directorate.

7. Europe Output Up 11.4% in November; Small Overall Gain Seen In 2010

European auto production increased for the first time since July 2008 as output rose 11.4 percent in November to 1,436,968 units, according to estimates from J.D. Power Automotive Forecasting. The market researcher also foresees a slight improvement in the region's production next year.

8. Renault Logan Passes Ford Focus in Tight Russia Sales Race

With one month to go, the Renault Logan has pulled ahead of the Ford Focus to become Russia's top-selling foreign car. The Logan outsold the Focus 5,131 to 3,348 in November. The Logan's sales surge pushed it into the top 3 in Russia's overall new-car sales, a spot in the table usually dominated by the Lada Priora, Samara, and 2105/2107 from Russia's No. 1 automaker AvtoVAZ.

9. Member States Reach Deal on Intelligent Transport Systems

Transport ministers have reached agreement on draft rules to create an EU framework for deploying intelligent transport systems (ITS). Governments are aiming to finalize the legislation in negotiations with MEPs early next year.

Under the agreement, the European Commission could adopt common specifications for the use of ITS in priority areas, such as traffic information and freight management, before proposing legislation on their deployment. Member states want to have the final say on ITS deployment in their territories.

Ministers failed to adopt a resolution on EU transport policy after 2010. As a result the Swedish EU presidency issued its own resolution, acknowledging the need to break the sector's dependence on fossil fuels and reduce emissions from transport.

10. UK Report Concludes Airlines Could Make Profit from EU ETS

Airlines could make billions of Euros in unearned profits under the EU Emissions Trading Scheme (ETS), according to a draft UK report. The Carbon Trust draft report reportedly assesses the impact of the EU ETS on airlines and argues airlines can and will pass through the costs of buying carbon allowances onto their passengers, even though the carriers will actually be granted the great majority of these allowances free of charge.

The UK government-sponsored agency models the effect of the EU ETS on a typical large European airline similar to British Airways or Lufthansa, focusing on its earnings before tax and interest (EBIT) – a measure of a company's profitability. In 2012, with a carbon price of €25 per ton of CO₂, this model airline could see its EBIT increase by 49% above what it would have been under a "business as usual scenario" in which there was no emissions trading scheme.

Some airlines will be better positioned than others. Those with newer, more fuel efficient aircraft – such as Easyjet and Ryanair – should benefit. So too should those flying routes for which an increase in fares will not cause a serious loss of ticket sales.

The Association of European Airlines contested the report's predictions. "Airlines find it very difficult to achieve fare increases, through any mechanism," it said. "The idea that they could artificially inflate them, collectively, is unthinkable".

11. Fight Brewing Over Eco-Innovation Rules for Cars

Several MEPs have accused the European Commission of planning to restrict the use of "eco-innovation" measures by car manufacturers in meeting future EU limits on carbon dioxide emissions from new vehicles. Under an EU law on car emissions, manufacturers can claim a credit of up to seven grams per kilometer (g/km) towards their targets until 2014 by introducing eco-innovations such as LED lights. The commission's environment department is drafting implementing rules on their use.

In a debate in the parliament's industry committee, German centre-right MEP Werner Langen criticized the department, saying it was planning to limit the credit carmakers could claim for each measure to 1g/km. Two other centre-right MEPs also criticized the move.

Commission official Philip Owen told MEPs the rules on eco-innovation were "still in the planning phase", but acknowledged a credit limit for individual innovations was "being debated". Many member states are open to a 1g/km limit, he added. The rules will be published in the course of next year.

The department is also drafting implementing rules on the monitoring and reporting of car emission data by member states, and on derogations from the EU limit for small and niche manufacturers. These are expected to be finalized by February of 2010.

12. Electric Vehicles Seem To Be Surpassing Hydrogen Alternative

Skepticism about hydrogen's future as a fuel source grew after BMW R & D boss Klaus Draeger recently told German business newspaper Handelsblatt that BMW will not develop a new test fleet of hydrogen-powered cars. Although he added that the automaker would continue to work on the technology, his words are a huge blow because BMW has been one of the most aggressive developers of hydrogen powertrain solutions.

Volkswagen also has de-emphasized its development of hydrogen engines and fuel cells. VW feels hydrogen cars currently are unsuitable for large-scale production.

BMW CEO Norbert Reithofer gave a strong indication at the Frankfurt auto show in September that hydrogen cars were losing favor when he said: "The electric drive is the great hope for the future."

BMW currently is testing 600 electric versions of its Mini in Germany, the UK and the United States. Trials of the Mini E will start in France next year. Information gathered from the tests will be used to create BMW's battery-powered Megacity Vehicle, which the automaker says will go into series production in the first half of the next decade.

BMW's growing emphasis on electric cars is just one indication that momentum is building for the niche. There were other positive signs last week.

- Think Global resumed production of its City full-electric minicar on December 11th. The Norwegian automaker stopped output in the second quarter and nearly collapsed due to the global financial crisis. Think exited court protection in Norway this summer after raising \$47 million in new capital and now plans to start delivering units of the City to customers before Christmas.
- Renault announced on December 8th that it will produce lithium-ion batteries in Portugal starting in 2012. The plant, which will be located in Aveiro, about 250km north of Lisbon, has a projected annual capacity of 50,000 batteries. Renault and alliance partner Nissan also plan to open lithium-ion-battery production plants in France, the UK, Japan, the United States.
- The UK government announced on December 8th that starting in April all electric cars will be exempt from company car taxes for five years. (See below.) The German government also has decided to exempt all electric vehicles from tax for the first five years.

Despite this momentum, the overall outlook for electric cars is unchanged. Many experts predict that electric cars will have a global market share of 5 percent or less by 2015 to 2020. Renault CEO Carlos Ghosn is more optimistic. He says electric vehicles could have 10 percent of the global market by 2020.

13. UK Offers Tax Exemptions for EVs; Support For Low Carbon Vehicles

In his Pre-Budget Report, the UK Chancellor announced that all electric cars will be exempt from the Company Car Tax for 5 years and electric vans will be exempt from the Van Benefit Charge for the same period. A 100 per cent first year tax allowance will also be provided for the purchase of electric vans subject to State Aid clearance. The PBR also has news of an additional £30m to support low carbon vehicle development, including an expansion of the Technology Strategy Board's ultra-low carbon vehicles competition.

The PBR 2009 also confirms that - as announced at Budget 2009 - fuel duty will increase by one penny per liter in real terms on 1 April each year from 2010 to 2013.

As also announced in the 2008 Budget, the duty differential for biofuels will cease from 1 April 2010. The 2009 Pre-Budget Report announces that the duty differential will continue for biofuels made from used cooking oils for two years. To support the value of biofuel production, the price of 'buying out' of the Renewable Transport Fuel Obligation will increase to 30 pence per liter from 2010-11.

The Chancellor confirmed that from 2012, the CO₂ emissions thresholds for Company Car Tax (CCT) bands will be shifted down by 5g CO₂ per km, and the graduated table of CCT bands will be extended downwards to a new 10 per cent band for cars emitting up to 99g CO₂ per km, in place of the existing 10 per cent band.

He also announced that, to support the public finances and encourage fuel-efficient travel, the fuel benefit charge multiplier will increase from £16,900 to £18,000 from 6 April 2010. The van fuel benefit charge will increase from £500 to £550 on the same date.

The Government has also announced that it is to support continued investment in transport infrastructure, including the £400 million M1 improvement scheme.

The Pre-Budget Report also announced that £400 million will be spent over the next two years "to support green growth and the development of low-carbon technologies, building on the £1.4 billion package announced at Budget 2009". This will be part-funded through a £150 million increase to the Strategic Investment Fund for low-carbon projects. These funds are to be directed at a number of sectors including boosts for domestic energy efficiency, community-level power generation, offshore wind development and decarbonizing the chemicals industry in addition to transport sector priorities detailed above.

14. Irish Climate Change Bill to Formalize Emissions Targets

A new statutory obligation to reduce greenhouse emissions by 80 per cent from 1990 levels will form part of the Climate change Bill when it is published early in 2010. The framework for the Bill was unveiled by Minister for the Environment John Gormley as part of his third carbon budget. He said the new Bill and the new carbon levy announced in the main budget would form the cornerstone of the new low carbon society.

It has emerged that the reduction in greenhouse gas emissions due to the recession is not happening as quickly as anticipated. Figures produced for the carbon budget by the Environmental Protection Agency (EPA) record a reduction of only 1 per cent in emissions in 2008 over 2007. This falls well short of the program for government target of a 3 per cent annual fall.

At the press conference on the carbon budget, Mr. Gormley conceded that he was frustrated with the figure of 1 per cent and wanted to see more. "But I have been waiting 20 years for a carbon levy and I am happy that it's here now. I cannot wait another 20 years for emissions to fall," he said.

The carbon budget reports on emissions for the previous years, sets new targets for the forthcoming year and outlines the measures that will be taken to meet those targets.

The proposed legislation also provides for a new office of climate change within the EPA and an expert climate change committee with a powerful advisory role.

The new target to cut emissions by 80 per cent by 2050, compared with 1990 levels, will mean that the country's emissions will need to cut current 65 million tons per annum to just under 11 million tons. That will mean massive reductions in all sectors: transport, agriculture, residential and energy.

The disappointing figures for 2008 result mainly from a marked increase in emissions in the residential sector compared to 2007. This was attributed to a colder winter last year, with an 8.7 per cent increase in this sector compared to the previous year.

The Minister pointed out in his speech to the Dáil that transport emissions had fallen by 1 per cent, the first fall in this sector since 1994. The modest fall was partly due to the changes in Vehicle Registration Tax and motor tax, but also due to lower vehicle sales and use of transport as a result of economic contraction. Mr. Gormley contended that the tax changes for vehicles had resulted in a major change of purchasing pattern. Some 83 per cent of new cars are within the three lowest-emitting bands.

Mr. Gormley said the carbon levy – which will increase petrol prices by 4 cent a liter – had the potential to reduce emissions by up to 250,000 tons each year.

The key points in the Climate Bill are:

- A 2050 target of 80 per cent reductions in emissions from 1990 levels (down to 11 million tons).
- Emissions reductions of an average of 3 per cent per annum will continue until 2020 (end year is 2012 at present).
- National Climate Change Strategy enshrined in legislation.
- Carbon Budget placed on a statutory footing.
- A new expert Climate Change Committee to advise on, and monitor, progress.
- A new Office of Climate Change.
- National Climate Change Adaptation framework will get legislative backing.
- A new domestic carbon offsetting or trading scheme will be set up.
- Minister for the Environment will retain overall responsibility.

15. Air Pollution Poses Problems for Greek Cities, Study Says

A study by Greece's National Center for the Environment and Sustainable Development (EKPA) found that air pollution and inadequate waste management are ongoing problems in Athens and other major Greek cities. The 2008-2009 study was the first to be carried out by EKPA since the independent organization under the auspices of the Environment Ministry was formed in 2000. The report was released on November 11th.

Rising air pollution levels in the northern port city of Thessaloniki, the western town of Patras, the eastern town of Volos, and the northwestern town of Kozani were mentioned. EKPA President Yiannis Ziomas told reporters on November 16th that “urban air pollution remains one of the country's major problems as well as the need for the protection of the country's forestland, much of which has been destroyed by fires in recent years.” On October 27th, Greece's new Ministry of Environment, Energy, and Climate Change unveiled a draft law that would suspend construction activity in areas affected by recent wildfires to allow reforestation.

The EKPA study also found dwindling rainfall and the subsequent risk of desertification in more than one-tenth of the country's land mass. Most-affected areas were the Peloponnese, Crete, Thessaly, and many of the Cycladic islands. Ziomas also stressed the need for improved water management in agricultural regions such as Thessaly.

16. Netherlands to Levy 'Green' Road Tax Per Kilometer Driven

The Dutch government has announced that it wants to introduce a "green" road tax by the kilometer from 2012 aimed at cutting carbon dioxide emissions by 10 percent and halving congestion. The Dutch cabinet has approved the legislation; it must be passed by Parliament before becoming law.

"Each vehicle will be equipped with a GPS device that tracks how many kilometers are driven and when and where. This data will be then be sent to a collection agency that will send out the bill," the transport ministry said in a statement.

Ownership and sales taxes, about a quarter of the cost of a new car, will be scrapped and replaced by the "price per kilometer" system. Dutch motorists driving a standard family saloon will be charged 3 euro cents per kilometer (seven US cents per mile) in 2012. That would increase to 6.7 cents (16 US cents per mile) in 2018, according to the proposed law.

Every vehicle type will have a base rate, which depends on its size, weight and carbon dioxide emissions. Taxis, vehicles for the disabled, buses, motorcycles and classic cars will all be exempt. "An alternative payment will be introduced for foreign vehicles," the ministry statement added.

Finance Minister Wouter Bos calls the proposal financially irresponsible. According to Radio Netherlands / Expatia, he fears that national budget could take a big hit because people might be less inclined to drive.

Advocates of the tax say nearly six in 10 drivers will benefit because the tax burden will be shifted to people who drive the most and at peak times. The price of a new car also would decrease significantly, because taxes comprise about 25 percent of the sticker price.

Over half of car owners would pay less in taxes than they do currently. Revenues would go to a transport infrastructure fund. This fund will be used to build roads, railways and other types of infrastructure.

The fewer emissions motorists create as they become more aware of their driving, the less they will have to pay. Research has shown that the number of kilometers travelled will be reduced by approximately 15% and the number of traffic jams will be halved as a result. In addition, the number of people killed on the roads is expected to drop by 7%. Road users will start to use alternative forms of transport as a result of which the use of public transport will go up by 6%. The environment also stands to benefit from the kilometer charge. CO2 and fine particle emissions will be reduced by more than 10%. In addition, vehicles will become cheaper as a result of the registration tax (25% of the price) being abolished. The total welfare gains from this system will amount to 1 billion euro per annum.

The following upward adjustments will be made to the average tariff for a passenger car up to 2018 (in eurocent per kilometer):

2012	2013	2014	2015	2016	2017	2017
3,0	3,5	4,0	4,6	5,3	6,1	6,7

For commercial vans the base tariff depends on the weight. The average tariff in 2012 and further is 1,7 eurocent per kilometer. The base tariff for heavy goods vehicles depends on the maximum weight and EURO emission class. The average tariff is 2,4 eurocent per kilometer

Besides this base tariff, the law allows a peak hour surcharge to be charged. This will apply to structural bottlenecks in the road network and potential short cuts. Additional legislation will govern whether or not a rush hour surcharge will apply to a location.

The information which is sent via the device will be legally and technically protected. Only the motorist will have access to this information. The authorities will not have access to any journey details and will not be able to track any vehicles. Thus the privacy of road users will be guaranteed.

17. Austria Only EU State Set to Miss Kyoto Target

All EU member states except Austria are set to meet their greenhouse gas emission reduction targets under the Kyoto Protocol, according to the latest projections from the European Environment Agency (EEA). Austria is projected to have greenhouse gas emissions 12.9% higher than its commitment for 2008-2012. The excess comes largely from sectors not in the EU emission trading scheme (ETS), such as households and transport.

As a block, the EU-15 is on track to meet its Kyoto commitment of an 8% reduction from 1990 levels. The EEA forecasts old member states will actually cut emissions by more than 13%. France, Germany, Greece, Sweden and the UK have already surpassed their individual targets. The ten new member states that have Kyoto targets are also set to meet these, according to the agency. Cyprus and Malta do not have emissions targets.

18. Stakeholders Split Over 60-Tonne Gigaliner Lorries

An EU consultation on the future of the transport sector has revealed split views among stakeholders on whether 60-tonne gigaliner trucks should be allowed on European roads. The European Commission is considering a revision of the existing 40-tonne limit.

Some member states, the logistics industry and road haulers believe gigaliner trucks would increase the efficiency of road transport, according to responses published by the commission last week. Green groups question their value.

The consultation results were presented at a conference in Brussels. A white paper on transport policy will be published next year. Decarbonizing the sector should be at the centre of transport policy from 2010 to 2020, stakeholders said at the conference. Commission president José Manuel Barroso has named decarbonizing the transport sector a priority for the next commission. While stakeholders agree with the commission's overall sustainability focus for transport, they differ over how to achieve this goal.

Many business organizations oppose internalizing the external costs of transport for example. They say it will only increase costs, reducing Europe's competitiveness. Member states support the idea, although plans to implement it in the revised Eurovignette directive have been held up.

On other issues, stakeholders agree that infrastructure investments should partly be designed to support co-modality, and that funds for the TEN-T network should be increased. But they are apprehensive about transnational infrastructure managers.

Sweden wants to promote cross-border "green corridors" such as high-speed rail links. Some stakeholders suggest a CO2 cap for the whole transport sector in Europe, split among the different modes. NGOs suggest carbon intensity targets for the sector.

19. NOx Tax for Ships Could Slash Emissions – Study

A charge on nitrogen oxide (NOx) emissions from ships of about €470 per ton could cut emissions in the Baltic Sea by nearly 60% annually, helping combat eutrophication and other environmental problems, according to a new NGO study. NOx emissions from ships in European waters are forecast to grow by nearly 40% between 2000 and 2020, according to the report by AirClim, T&E and EEB. Tougher NOx standards for new ships adopted last year are hindered by a slow fleet turnover rate, the NGOs say.

The study analyses the efficacy of economic instruments including emissions trading and differentiated fairway and port dues. Although the Baltic Sea was used as a case study, the green groups say their conclusions are "most probably" applicable to other seas.

The proposed tax was inspired by Norway's levy on NOx emissions. Proceeds from this tax are used to finance NOx-reduction projects in the shipping sector. NOx emissions in the Baltic Sea could be reduced by 270,000 tons per year in 2015, according to the NGOs.

20. EU Approves Romanian Loan Guarantees to Ford Subsidiary

On November 13th, the European Commission authorized loan guarantees from the Romanian government to Ford Romania, enabling the company to receive a loan from the European Investment Bank to finance a low-carbon dioxide engine and future vehicle production.

"The Commission can authorize this state guarantee, which should contribute to Ford's trans-European investment project for environmentally friendly cars without giving rise to undue distortions of competition," European Union Competition Commissioner Neelie Kroes said in a written statement.

During the economic crisis, the EU state-aid rules temporarily allow EU member states greater possibilities to provide access to financing while the financial system is not working fully.

Ford Romania is planning to use the EIB loan of €400 million (\$596) for its 1-billion-euro project at its Craiova plant, which is part of a joint European venture to develop engines with low emissions of carbon dioxide, the Commission said in a news release.

The EIB will also lend another 200 million Euros to Ford Werke in Germany for the same project, which is coordinated by Ford Europe.

The Romanian government guarantees 80 percent of the loan, which fulfils the conditions for the Commission's temporary rules for state aid measures. The loans and guarantees will be provided for the five-year-period of 2009–2014, with a maturity of seven years.

21. Spain Extends Subsidy Program for Low Carbon-Emission Vehicles

On November 8th, with the dual objective to provide economic relief and to reduce carbon dioxide emissions, the Spanish government extended its national "Plan E" economic and job

stimulus plan with €40 million (\$60 million) in subsidies for the purchase of up to 80,000 lower-emission vehicles.

Royal Decree 1667/2009, which the Council of Ministers (cabinet) approved on November 6th, went into force on November 8th, the day after its publication in the Boletín Oficial del Estado, Spain's national register. According to the government, the plan encourages consumers to buy newer, less polluting vehicles, while taking older, dirtier cars out of circulation.

The €40 million will be distributed to dealers through collaborative entities eligible to distribute public funds. The government subsidies amount to €500 (\$750) per vehicle, along with any subsidies from regional governments that may also apply.

To qualify for the subsidy, buyers must have had a vehicle that is at least 10 years old or that has been driven a minimum of 250,000 kilometers (155,300 miles) and they must present proof that the old vehicle has been scrapped.

The subsidy is available for the purchase of larger vehicles that emit 160 grams per kilometer of carbon dioxide or less, for “ecological” passenger cars that emit 120 grams of carbon dioxide per kilometer or less, or for passenger vehicles that emit 149 grams of carbon dioxide per kilometer or less and incorporate special technology. No vehicle may cost more than €30,000, (\$45,000) including value-added taxes.

Almost half of the 190,000 vehicles already sold under the plan have been those with emissions of less than 120 grams of carbon dioxide per kilometer, while the rest emit less than 150 grams per kilometer. In addition, 77 percent of the vehicles scrapped under the Spanish plan were at least 10 years old and 49 percent of the vehicles were 15 years or older.

The subsidy program has been in effect since May 22, 2009. It replaced an earlier “ecological” vehicle finance program called Plan Vive, which the government introduced in July 2008.

22. Spanish Efficiency Program to Cut Transportation's Carbon Emissions

On November 12th, Spain's public works minister said the government is preparing and implementing energy efficiency measures in rail and air transportation, including “green landings” at airports, to reduce carbon dioxide emissions. Minister José Blanco said efforts to “restructure airspace” by reworking traffic patterns to achieve more efficient route options will begin in December. The efforts are expected to reduce emissions by 600,000 metric tons in 2012.

Energy efficiency programs in the railroad sector are projected to reduce emissions by 115,000 metric tons in 2011 and 183,000 metric tons in 2014, he said. “Sustainable airport” measures will include a 25 percent reduction in energy consumption, renewable energy production on site, and the introduction of electric airport vehicles.

Starting in 2010, Spanish airports will gradually introduce “green landings,” in which planes switch to minimal power for the last 180 kilometers (112 miles) and glide in for landing. Blanco said this will reduce fuel consumption, carbon emissions, and noise pollution. SAS Scandinavian Airlines reportedly introduced the practice in 2006.

In a statement describing Blanco's address to a parliamentary committee on climate change, the government said a switch to “the most modern and sustainable” fleet of trains in Europe will be completed in 2010. By 2016, all trains will be equipped with technology that allows high-speed trains to feed excess energy generated by motors during braking phases to the electricity

grid. According to the France-based multinational company Alstom Transport, power fed into the grid by a high-speed train during braking phases can reach 8 megawatts.

In addition to reducing high-speed trains' energy use by 10 percent in 2011 through "intelligent driving" techniques, Spain's railroad overhaul will include installation of solar energy generation systems at 61 train stations. All new stations are to be built in accordance with bio-climatic architecture, with an emphasis on renewable energy and "organic" materials.

Blanco also said the government will revise its Strategic Infrastructure and Transportation Plan to require lower emissions from the transportation sector. This will come after any international agreements on climate change are reached at the 15th Conference of the Parties to the United Nations Frameworks Convention on Climate Change in Copenhagen in December.

Blanco said environmental sustainability and climate change will be priorities for Spain's six-month EU presidency, which starts Jan. 1, 2010.

23. EU Electric Car Policies 'Will Increase CO2 Levels'

Policies designed to promote electric cars contained in EU legislation to reduce car CO2 emissions agreed last December will increase rather than decrease total emissions from road transport, green mobility group T&E said in a new report. Electric cars are counted as "zero emissions" under the law, even though the electricity they use can come from coal, the group points out. Director Jos Dings told reporters that electric cars using coal-based electricity often have a higher carbon footprint than conventional cars.

Moreover, the car CO2 legislation includes "super-credits" that let carmakers sell "up to 3.5 gas-guzzling SUVs for every electric vehicle they sell and still reach their EU target". European Commission proposals to limit emissions from vans published last month also suggest super-credits for electric-powered vehicles.

T&E urges EU policymakers to close off these "loopholes". It believes electric cars have a role to play in cutting European transport emissions, but that policymakers should not incentivize them like this or set targets for them.

Instead, policymakers should tighten car CO2 emission limits, promote green electricity and make smart meters in electric cars mandatory as part of electric car type approval rules due to be proposed next year, Mr. Dings said.

The electric car industry has hit back, arguing that the study understates the environmental benefits associated with electric vehicles and could undermine the embryonic market.

"We have to keep going back to the basic message that electric cars are cleaner," said Barry Shrier, chief executive of Liberty Electric Cars. "Study after study has shown that the wheel-to-well emissions are much better – even if you produce electricity in the dirtiest way available using coal, life cycle emissions from electric vehicles are still 50 per cent lower than they are for internal combustion engines."

He added that electric vehicles also had the potential for their emissions to fall to nearly zero as electricity supplies are decarbonized. "Piston engine technologies will never be zero carbon," he said. "They are a dead end."

His comments were echoed by a spokesman for the UK Department of Transport who said that large numbers of electric cars could be supported as the grid infrastructure is improved. "Electric cars powered from today's UK generating grid would save up to 40 per cent of the CO2 emissions of a conventional petrol car over its full life cycle," he said. "This saving can improve as the grid moves to using more low-carbon power sources. If demand for electricity is properly managed, through the use of smart meters and dynamic tariffs, the grid can support a relatively high number of Electric Vehicles. In fact, they can provide a way to capture and store electricity at night from renewable sources like wind power."

The concerns over the EU "loophole" are also largely unfounded, according to Shrier, who said that it represented an effective means of incentivizing large auto manufacturers to transition to electric vehicles. "No one is expecting big companies to move overnight to only producing electric cars," he said. "But the way the super credits are structured gives them an incentive to start producing electric cars and they can then expand from there."

Commission president José Manuel Barroso said in September that decarbonizing Europe's transport sector and electricity supply, including the development of electric cars, would be a priority for the next commission. Electric cars are rising up the political agenda due to the climate issue.

24. EU Publishes Pollutant Release Data For 2007

The first inventory of the new European pollutant release and transfer register (E-PRTR) has been published, consisting of 2007 data on emissions of 91 pollutants from more than 24,000 industrial facilities across Europe. The new register fulfils a requirement under an international protocol on pollutant release registers which entered force last month. The protocol was adopted under the UN Aarhus Convention on public access to environmental justice and information.

As well as providing information on emissions of pollutants to air, water and land, the register also includes data on national and international transfers of waste from industrial facilities to waste handlers.

Preliminary information on pollutant releases from "diffuse" sources such as agriculture will be "gradually improved in the coming months", according to the European Commission. The register will be updated in April each year starting from 2010.

NORTH AMERICA

25. Landmark Endangerment Finding Triggers EPA GHG Reduction Strategies

On December 7th, Environmental Protection Agency Administrator Lisa Jackson announced a finding that greenhouse gas emissions endanger public health and the environment and that cars and light trucks cause or contribute to these emissions. The decision to finalize the endangerment finding paves the way for EPA to begin regulating greenhouse gas emissions from cars and light trucks and, subsequently, from other mobile and stationary sources under the Clean Air Act. The announcement came as the Obama administration looked to boost its arguments that the United States is aggressively taking actions to combat global warming, even though Congress has yet to act on climate legislation.

The EPA said that the scientific evidence surrounding climate change clearly shows that greenhouse gases "threaten the public health and welfare of the American people" and that the pollutants — mainly carbon dioxide from burning fossil fuels — should be regulated under the Clean Air Act. "These long-overdue findings cement 2009's place in history as the year when the United States government began addressing the challenge of greenhouse-gas pollution," said EPA Administrator Lisa Jackson at news conference.

The action by the EPA, which has been anticipated for months, clearly was timed to add to the momentum toward some sort of agreement on climate change at the Copenhagen Conference of the Parties and try to push Congress to approve climate legislation.

"This is a clear message to Copenhagen of the Obama administration's commitments to address global climate change," said Sen. John Kerry, D-Mass., lead author of a climate bill before the Senate. "The message to Congress is crystal clear: get moving."

Under a Supreme Court ruling, the so-called endangerment finding is needed before the EPA can regulate carbon dioxide and five other greenhouse gases released from automobiles, power plants, and factories under the federal Clean Air Act.

The EPA signaled last April that it was inclined to view heat-trapping pollution as a threat to public health and welfare and began to take public comments under a formal rulemaking. The action marked a reversal from the Bush administration, which had refused before leaving office to issue the finding, despite a conclusion by EPA scientists that it was warranted.

The EPA and the White House have said regulations on greenhouse gases will not be imminent even after an endangerment finding, saying that the administration would prefer that Congress act to limit such pollution through an economy-wide cap on carbon dioxide and other greenhouse gases.

Nevertheless, the EPA has begun the early stages of developing permit requirements on carbon dioxide pollution from large emitters such as power plants. The administration also has said it will set the first-ever greenhouse gas emissions standards for automobiles and raise fuel economy to 35 miles per gallon by 2016 to reduce carbon dioxide emissions.

While the House has approved climate legislation that would cut emissions by 17 percent by 2020 and about 80 percent by mid-century, the Senate has yet to take up the measure amid strong Republican opposition and reluctance by some Democrats.

Sen. John Kerry, D-Mass., lead author of the Senate bill, has argued that if Congress doesn't act, the EPA will regulate greenhouse gas emissions. He has called EPA regulation a "blunt instrument" that would pose a bigger problem for industry than legislation crafted to mitigate some of the costs of shifting away from carbon emitting fossil fuels.

The way was opened for the EPA to use the Clean Air Act to cut climate-changing emissions by the Supreme Court in 2007, when the court declared that carbon dioxide and other greenhouse gases are pollutants under the Act. But the court said the EPA must determine if these pollutants pose a danger to public health and welfare before it can regulate them.

The endangerment finding is a key development in EPA's effort to regulate greenhouse gas emissions. The agency said on-road vehicles contribute at least 23 percent of total U.S. greenhouse gas emissions. The agency is working to complete a rule with the Transportation

Department's National Highway Traffic Safety Administration to control vehicle emissions, but EPA first had to make a formal determination that emissions pose a danger. A rule limiting vehicle emissions will open the door to rules for stationary sources such as power plants and refineries.

According to EPA, effects linked to climate change include hotter and longer heat waves that would threaten the health of the sick, poor, and elderly, and increases in ground-level ozone concentrations. They also include increases in tick-borne diseases, food- and waterborne pathogens, and airborne allergens from weeds and trees.

Environmental and welfare effects include rising sea levels, more droughts from reduced snow-packs, more wildfires and insect outbreaks, and damage to ecosystems, the agency said. Climate change also may exacerbate problems that raise humanitarian, trade, and national security problems for the United States overseas, according to EPA.

The endangerment finding covers emissions of six greenhouse gases: carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride.

Jackson said, "I stand firm in my belief that legislation is the best way to move our economy forward on clean energy and address climate pollution." Jackson said legislation can be applied economy-wide and can provide business with more certainty. However, she said legislation and EPA regulatory action can complement each other. "I do not believe that this is an 'either/or' proposition," Jackson said. "I actually see it as a both/and." Jackson said proposed emissions limits on cars and light trucks is an example of regulatory action complementing legislative action.

On June 26th, the House passed a bill (H.R. 2454) that would establish a nationwide emissions cap-and-trade system affecting stationary sources, but not vehicles. Similar legislation (S. 1733) is under consideration in the Senate.

Jackson said she is not taking action on endangerment to pressure Congress into passing climate legislation, but rather in response to a two-year-old Supreme Court ruling.¹ The Supreme Court said in 2007 that carbon dioxide and other greenhouse gases are air pollutants under the Clean Air Act and that EPA is required to determine whether emissions from cars and trucks endanger public health and welfare and to justify its decision.

Jackson would not say when EPA would take action under the Clean Air Act to regulate greenhouse gas emissions from individual industrial sectors.

She also said she does not favor setting national ambient air quality standards for greenhouse gas emissions, and the endangerment finding does not require such a standard. "I have never believed and this agency has never believed that setting a national ambient air quality standard for greenhouse gases was advisable," Jackson said. Nevertheless, EPA is reviewing a petition submitted Dec. 2 by the Center for Biological Diversity and 350.org to set air quality standards for greenhouse gases, she said.

What happens next in the long-running U.S. drama over limiting greenhouse emissions could come down to a duel over whether rules or laws should dominate the policy landscape. Given

¹ Massachusetts v. EPA, 127 S. Ct. 1438, 63 ERC 2057 (2007)

slow progress in Congress on crafting a bill to curb climate change, EPA may lead the way, even though the Obama administration has repeatedly said it prefers legislation.

Here are some ways the process could play out:

a. Rules and Laws in Concert

This seems to be what the Obama team wants. "The reason is because legislation is comprehensive; it can be economy-wide," Jackson said. "It can give business absolute certainty that we are on the road to clean energy, that the investments they want to make ... will be profitable ones, because they know that this country is on the road."

The problem is the timetable in Congress. Mired in contentious debate over healthcare, climate change is unlikely to make it through the Senate until 2010, if then. Ultimately, though, EPA regulations could act as a backstop to any action on Capitol Hill.

b. Rules First

With the way clear to regulate various sectors of the U.S. economy to limit greenhouse gas emissions, the EPA is well-placed to go forward on limiting global warming pollution from cars and factories.

The agency has already started doing so: automakers will know by next March how much more fuel-efficient their vehicles will have to be in the 2012 model year. Legislation in Congress does not address this issue directly, so it is likely to proceed no matter what happens in the Senate.

Starting in January, the biggest U.S. greenhouse emitters will participate in an EPA national registry to collect data on how much of these heat-trapping gases they emit. The program will cover about 10,000 facilities, accounting for up to 85 percent of U.S. greenhouse gas emissions.

c. Laws First

Carbon-capping legislation narrowly passed the U.S. House of Representatives but is so far stalled in the Senate. A compromise might be reached but that is unlikely to happen before the first of the EPA's proposed regulations take effect.

The divide is not necessarily between environmentalists and industrialists. Some businesses, such as those in the U.S. Climate Action Partnership, have clamored for a federal law to limit emissions to provide investment certainty. Other industries, represented by the U.S. Chamber of Commerce, oppose so-called cap-and-trade legislation on the grounds that it would hamper businesses as the country struggles out of a painful recession.

Congressional climate skeptics pose another obstacle to legislation.

d. Rules but No Laws

If Congress fails to pass a climate change bill, EPA regulations could go forward but would be vulnerable to litigation from business interests. The argument would likely turn on potential damage to the economy, including the impact on job creation due to added costs of complying with new environmental rules.

26. California Diesel Truck-Rule to Be Relaxed; Economic Assessment Key

Debate over whether and at what pace the state economy recovers from the recession is at the heart of forthcoming changes to relax the California air board's embattled diesel "on-road" truck regulation, recommendations which are expected early next year. At a December 9th meeting, board members directed staff to formulate recommendations to relax the regulation and they also acknowledged that diesel emissions are down and that relaxing the rule is justified. This decision comes after massive protests by truckers and other affected industry representatives, who argued compliance with the regulation should be delayed by at least two years based on economic data.

Meanwhile, the board also directed staff to redraft a controversial report on the health impacts of diesel emissions, following outcry over the lead researcher of the report who lied about his qualifications.

The California Air Resources Board's (CARB) diesel truck rule is considered one of the costliest rules ever adopted by the board. The economic recession -- and consequential reductions in truck use and therefore diesel emissions -- has aided industry arguments that the board should at the very least delay the rule or scrap it altogether.

At the December 9th meeting, CARB members directed staff to return to the board in April with proposed amendments to the on-road diesel truck rule. The regulation requires private diesel trucking fleets to install emission-control technology starting in 2010; engines older than the 2010 model-year will have to be retired and replaced with the newest engines on a staggered schedule between 2012 and 2022.

CARB members directed staff to propose amendments to the rule to reflect the fact that research shows that emissions are actually lower than expected due to the poor economy. CARB staff at the meeting floated options for potential amendments. These include a two-year deferral from the rule for mid-sized fleets, and possibly deferring all first-year rule requirements. The board staff also floated different economic forecasts to be used for determining the level of relaxation to put into the rule.

Staff has projected a "slow growth" economic scenario where growth would be consistent with the state's employment forecasts. Under this scenario, trucking activity would recover starting in 2011 and truck sales would recover in 2012. Under a "faster growth" scenario, truck activity would recover next year, as would new truck sales.

Board members at the meeting were split on which economic forecast CARB staff should use in amending the rule. For example, CARB member Dorene D'Adamo supported using a faster growth scenario. She noted that if the board banked on a slower growth forecast and turned out to be wrong, it would jeopardize CARB's ability to meet a federally mandated 2014 deadline for meeting air quality standards. In contrast, CARB member Barbara Riordan argued that staff should base the rule changes on a slow economic forecast. "I just have the feeling that we're in for a long, difficult recovery."

The board also directed staff to redraft a controversial 2008 diesel health risk report that was one of many studies used to justify the rule. CARB member John Telles at a November 19th board meeting ripped board staff for failing last year to alert board members before a vote on the rule that the lead author of the report in question, Hien T. Tran, lied about having a Ph.D. in statistics.

27. EPA to Overhaul Air Pollution Standards

The U.S. Environmental Protection Agency (EPA) will revise existing standards for six major air pollutants, according to top agency officials. Speaking at a conference on October 26th, EPA Assistant Administrator for Air and Radiation Gina McCarthy pledged that between 2008 and 2011, the agency would review the major air pollution standards, including one updated late in 2008.

Six National Ambient Air Quality Standards (NAAQS) are currently in effect: ozone, particulate matter, lead, sulfur dioxide, nitrogen dioxide, and carbon monoxide. For each of the six pollutants, EPA must set standards sufficiently protective of both public health (called the primary standard) and public welfare (called the secondary standard). The Clean Air Act requires EPA to review and, if necessary, revise the standards every five years.

In the past, EPA repeatedly failed to abide by the five-year schedule, sometimes letting a decade or more pass before reviewing a specific pollutant. For example, EPA has not completed a review of the standards for sulfur dioxide since 1996 or for carbon monoxide since 1994. In both of those reviews, EPA chose not to change standards first set in the 1970s. Current reviews for both pollutants are in their early stages.

Early signs indicate the Obama administration will make the NAAQS program a higher priority. Although EPA has not completed a review for nitrogen dioxide since 1996, it proposed revisions to the standards on July 15th. The agency is under a court order to set final standards by January 2010. The new standards would target short-term emission spikes such as those near major highways. "People who live or go to school near these thoroughfares are particularly at risk," according to the American Lung Association (ALA). The ALA is asking EPA to set an even stricter standard for short-term nitrogen dioxide emissions than EPA proposed in July.

EPA revised the ozone standards in March 2008. Although EPA tightened both the primary and secondary standards to 0.075 parts per million (ppm) from 0.084 ppm, EPA's scientific advisors had recommended an even lower level. The 2008 revision to the ozone standard was the first since 1997.

EPA had originally sought to set a separate secondary standard tailored to higher ozone exposure levels seen during summer months but was undercut by the Bush White House. During the customary White House review of the rule, conducted by the Office of Information and Regulatory Affairs (OIRA), then-OIRA administrator Susan Dudley asked President George W. Bush to overrule EPA on the secondary standard. Bush agreed with Dudley and forced EPA to abandon its original decision and make the secondary standard the same as the primary standard.

Although ozone is not scheduled for another review until 2013, reviewing the standards ahead of the five-year schedule has been an early priority for current EPA Administrator Lisa Jackson. The agency plans to propose revisions in December. If EPA chooses to lower the standard to the high end of the range proposed by its scientific advisors, 0.070 ppm, it could prevent at least an additional 300 premature deaths and 610 heart attacks annually, according to agency estimates. The proposal is currently under review at OIRA.

OIRA also interfered in EPA's 2006 revision to the air quality standards for fine particulate matter. As in the ozone case, EPA chose to lower the standards, but it ignored the advice of its

scientific advisors who had called for an even lower level. OIRA was accused of channeling industry objections into the final rule. The rulemaking docket also shows that OIRA edited the text of the final rule, removing a sentence that said reducing fine particulate matter exposure "may have a substantial impact on the life expectancy of the U.S. population."

Particulate matter is perhaps the most dangerous air pollutant to which humans are regularly exposed. A recent EPA study found that "1.7 percent to 6.7 percent of all deaths in 2007 in 15 cities were attributable to long-term exposure to fine particulate matter." Lowering the standard "could reduce the risk of mortality from long-term exposure to the pollutant by as much as 89 percent in some urban areas, according to the assessment." EPA expects to propose new fine particulate standards in July 2010 and finalize them by April 2011.

Lead is the only air quality standard EPA will not formally review during the Obama administration. The current standard for lead was finalized in November 2008. EPA tightened the exposure level to 0.15 µg/m³ (micrograms per cubic meter), from 1.5 µg/m³. The adjustment marked the first time EPA had revised the standard since it was first set in 1978. However, EPA is in the process of reconsidering the national network of lead pollution monitors. In addition to setting a new lead standard in 2008, EPA announced it would add new pollution monitors to help regulators identify polluted areas. OIRA pressured the agency to double the emissions threshold for determining where monitors should be placed. The change means state and local officials will not be required to place new lead pollution monitors near at least 124 facilities that emit lead. EPA announced July 22 that it would reconsider the threshold.

28. Industry Groups Want To Restart Legal Battle Over Smog Standard

Industry groups and the state of Mississippi are asking a federal appeals court to move forward on legal proceedings over national smog limits, despite U.S. EPA's plans to reconsider the George W. Bush administration's controversial standard.

In a brief submitted to the U.S. Circuit Court of Appeals for the District of Columbia, Mississippi and industry petitioners asked the court to resume a legal battle challenging the agency's 2008 standard for ozone, or smog.

The Bush administration tightened its ozone pollution standards in March 2008 to 75 parts per billion (ppb), replacing the former standard of 84 ppb. A coalition of state and environmental groups sued the agency over the 2008 rule, arguing that it did not do enough to protect human health. Mississippi and industry groups also sued the agency to weaken its ozone limits.

The Obama EPA announced plans in September to reconsider the smog standard, citing concerns about whether the 2008 limit satisfies the Clean Air Act. The agency plans to issue a proposed rule by Dec. 21, and to sign the final rule by Aug. 31, 2010.

EPA asked the court to stall proceedings until it finalized reconsideration. But Mississippi, the National Association of Home Builders, the Ozone NAAQS Litigation Group and the Utility Air Regulatory group want the court to order briefing to resume in the cases.

The petitioners wrote that they will "suffer significant and irreparable harm as a result of both implementation of the ozone rule and the loss of their rights to due process if the court continues to hold these cases in abeyance." Should the court deny their request, petitioners asked the court to stay the 2008 rule in its entirety, rather than grant a partial stay.

To reduce states' workloads, EPA announced in September that it would propose to hold off on making area attainment designations under the 2008 standards but that it would continue to use the 2008 standards for New Source Review (NSR) permitting purposes.

But EPA argues that the request to proceed with legal briefings "inappropriately seeks to derail EPA's reconsideration of the 2008 ozone rule, for fear that EPA may conclude that a more protective standard is necessary to protect public health and welfare."

The agency also asserted that it would go against the public interest to stall the 2008 standards. "Though EPA believes the 2008 standards may not be adequately protective, staying them pending judicial review would only weaken needed public health and welfare protection -- protection that is needed beyond the 1997 standards, which are even less stringent than the 2008 standards," the brief says.

A coalition of state and environmental interveners in the case weighed in on EPA's behalf, asking the court to deny industry's motion in its entirety.

29. EPA Advisors Question EPA Data Limits in New Ozone NAAQS Review

EPA's science advisors evaluating the agency's new review for the national ambient air quality standard (NAAQS) for ozone are questioning the agency's plan to restrict consideration of older scientific studies from being included in the review. The advisors say excluding work that was done to support the contested 2008 ozone NAAQS will handicap the current effort. However, industry supports the restrictions, saying the panel's wish to use the older studies may be driven by a desire to impose a more stringent standard than the 2008 limit of 75 parts per billion (ppb), which EPA is now reconsidering.

Members of EPA's Clean Air Scientific Advisory Committee (CASAC) ozone panel criticized EPA-imposed constraints on information that can be considered in the new ozone review on a November 13th conference call to discuss EPA's draft Integrated Review Plan (IRP).

The panel is working on reviewing the new standard, to be finalized by February 2014, as the agency is simultaneously reconsidering its 2008 ozone NAAQS following legal challenges by states, industry and environmentalists. The Obama EPA agreed to reconsider the Bush-imposed ozone NAAQS in part because it rejected CASAC's recommendation for an even tighter limit than 75 ppb. But industry is seeking to block the agency from reconsidering the standard and instead is pushing to continue litigation challenging the NAAQS.

Should EPA prevail in the legal challenge, it expects to re-propose the 2008 ozone NAAQS by December 21st, according to EPA. In seeking to limit data considered in the new review, EPA is distinguishing between information used during the prior review in 2006, which resulted in the 2008 standard, and post-2006 data to be used in the fresh review.

The agency is basing this approach on prior practice adopted for other NAAQS reviews, it says in the draft IRP, noting it will only allow older studies to be considered if they are reinterpreted. "[I]mportant older studies will be more specifically discussed [by the new ozone NAAQS review] if they are open to reinterpretation in light of newer data and/or to reinforce key concepts and conclusions," the draft IRP says. Otherwise, only post-2006 data can be used for the new review.

EPA officials said on the call that this approach is justified by its draft document from September, Provisional Assessment of Recent Studies on Health & Ecological Effects of Ozone Exposure. The document concludes that “these results do not materially change any of the broad scientific conclusions regarding the health effects of [ozone] exposure made in the 2006 [Air Quality Criteria for Ozone and Related Photochemical Oxidants, or AQCD].” The AQCD was an important document used to derive the 2008 standard.

However, some CASAC ozone panel members are unhappy with EPA’s conditions for use of older studies in the new NAAQS review. On the conference call, several panel members worried that there have not been sufficient new studies conducted since 2006 to inform the new review.

In some cases, the definitive studies on a given aspect of ozone exposure were conducted prior to 2006 and have not been improved upon since, panel members noted. For example, James Ultman, an expert in dosimetry, said there have been few new studies in this area, so re-interpretation of the existing studies will be important. Other panelists said the language allowing for inclusion of pre-2006 studies in the new review only on the basis of re-analysis should be removed from the IRP to allow unconditional inclusion of such studies.

But a source with the American Petroleum Institute (API), however, says that the panelists’ desire to include older studies in the new review may stem from their wish to use studies that support a more stringent ozone NAAQS than would be the case relying on newer studies. The pre-2006 record “has ammunition for a lower [more stringent] standard,” the source says, adding “there is not such a dearth in studies” conducted since 2006.

The source cites as an example a study by W.C. Adams, used in the 2006 ozone NAAQS review, which after an EPA re-analysis showed that ozone can have deleterious effects on health at 60 ppb. The study author himself contested the new finding, the source says, illustrating the risks involved in re-interpreting old data. API takes the view that all such re-analyses must be published and peer-reviewed to be credible.

At the same time, some industry groups argue that EPA should do a complete review of all the available science, including newer studies, when conducting its reconsideration of the 2008 standard, the API source notes.

On the conference call, CASAC ozone panel members also reiterated earlier concerns they had raised, including that the ozone review should also include climate change considerations, whether EPA had selected the correct “indicators” to be included in the NAAQS review, and the adequacy of the ozone monitoring network.

Panelists argued that the IRP needs to more explicitly consider the interaction between climate change and ozone impacts, notably on plant health, which is covered by the “secondary” NAAQS. EPA’s 2008 NAAQS set the primary and secondary zone NAAQS at the same 75 ppb level against CASAC’s advice -- the science advisers recommended that the primary standard be set at a level no less stringent than 70 ppb, and that the secondary standard be set at a different level than the primary.

Participants on the call noted that rising temperatures will increase ozone formation, and will have a bearing on the range of various plant species. Panel chairman Jonathan Samet said, however, that CASAC does not want to involve itself too deeply in complex international climate issues beyond the traditional purview of NAAQS review that look at local ozone impacts.

Another concern voiced by several panelists was the question of whether ozone itself is the correct “indicator” to measure, as other pollutants contribute to ozone formation and measuring them in addition to ozone could be more relevant. Also, the existing network of air monitors, based mainly in outdoor urban locations, may not accurately capture the mixture of ozone and other oxidizing chemicals being inhaled by public, panelists said.

While EPA officials on the call did not respond to the indicator question, agency staff did say they will solicit CASAC’s views on the adequacy of the monitoring network.

Panelists also voiced their concern that factors such as obesity and exercise, which compound the effects of ozone exposure, should be given more consideration in the NAAQS review.

30. U.S. Offers \$5 Million to Help Cut Arctic Black Carbon Soot Pollution

The Obama administration will commit \$5 million towards international cooperation to reduce black carbon emissions in and around the Arctic. Nancy Sutley, who chairs the White House Council on Environmental Quality, announced the new commitment at the UN climate summit in Copenhagen. Black carbon, or soot, is composed of fine particles that are produced from the incomplete combustion of diesel fuel, wood, crop waste and other biomass, oil, refuse, and, in some cases, coal. Black carbon pollution has well known and significant adverse impacts on human health. Science shows that these emissions play a significant role in warming the Arctic and accelerating ice melt.

Sutley said the United States anticipates these funds will be matched by other nations to develop and implement mitigation efforts, which will help reduce Arctic warming while yielding direct public health and ecosystem benefits.

In launching the new initiative, Sutley cited the 2009 Tromsø Declaration of the Arctic Council, in which the eight member nations recognized that “protecting the Arctic against potentially irreversible impacts of anthropogenic climate change depends mainly on substantially reducing global emissions of carbon dioxide and other greenhouse gases.”

The Arctic Council highlighted the role of “short-lived climate forcers” such as black carbon, methane, and tropospheric ozone on Arctic climate change. They stated that reducing emissions of these forcers has “the potential to slow the rate of Arctic snow, sea ice and sheet ice melting in the near-term.” The Arctic Council further decided “to establish a task force on short-lived climate forcers to identify existing and new measures to reduce emissions of these forcers and recommend further immediate actions that can be taken.”

The United States views protection of the Arctic environment as an urgent priority. For this reason it strongly supported the Tromsø Declaration statements on short-lived climate forcers, and immediately volunteered to co-chair, with Norway, the new Arctic Council task force. The announcement further demonstrates the Administration’s resolve on this issue and is intended to jump-start international collaboration, according to Sutley. She said that she is encouraged that Norway and Sweden have already expressed interest in participating in the context of Arctic Council cooperation.

Different financial instruments managed by Nordic Environment Finance Corporation could possibly contribute to and co-finance development and implementation of appropriate energy efficiency, clean technology, and transportation related projects.

Strong evidence indicates that black carbon contributes to climate change by warming the atmosphere and by darkening the surface of snow and ice, speeding melting. Recent studies have suggested that black carbon is a significant contributor to the observed, amplified Arctic warming. Unlike long-lived greenhouse gases such as carbon dioxide, black carbon's warming effects are short-lived, and therefore reductions in emissions will help mitigate Arctic warming in the near term.

While U.S. air quality regulations for fine particles have largely controlled black carbon emissions from industrial and other stationary sources, recent regulations have targeted diesel engines, which are the dominant source of remaining black carbon in the United States. U.S. standards for fine particle emissions from new highway diesel vehicles are reducing black carbon emissions from these engines by 90 percent or more. Similar emissions standards have been adopted for new off-road diesel engines, including locomotives, and thousands of older diesel vehicles have been retrofitted with particle filters.

The new initiative will include investments 1) to fill information gaps, 2) to identify barriers to implementation and develop approaches to overcome them, 3) to demonstrate and evaluate technological and non-technological mitigation options, and 4) where possible, to lay the groundwork to quantify the climate and, where possible, public health benefits of black carbon mitigation strategies. The investments are expected to focus on black carbon emitted by on-road and non-road diesel engines, including those used for port operations, older district heating and industrial facilities, and agricultural and forest fires that contribute to Arctic black carbon.

The initiative will provide sufficient information and practical experience to describe the costs and benefits of tested interventions to reduce black carbon emissions affecting the Arctic.

In launching the new initiative, Sutley further noted that the United States will work in the International Maritime Organization with other interested Parties to address particulate emissions from international shipping that contribute to Arctic warming.

31. EPA Adopts Standards for Large Ships to Curb Air Pollution

The U.S. Environmental Protection Agency has finalized a rule setting engine and fuel standards for large U.S. - flagged ships, a milestone in the agency's coordinated strategy to slash harmful marine diesel emissions. The regulation harmonizes with international standards and will lead to significant air quality improvements throughout the country.

"There are enormous health and environmental consequences that come from marine diesel emissions, affecting both port cities and communities hundreds of miles inland. Stronger standards will help make large ships cleaner and more efficient, and protect millions of Americans from harmful diesel emissions," said EPA Administrator Lisa P. Jackson. "Port communities have identified diesel emissions as one of the greatest health threats facing their people – especially their children. These new rules mark a step forward in cutting dangerous pollution in the air we breathe and reducing the harm to our health, our environment, and our economy."

Air pollution from large ships, such as oil tankers and cargo ships, is expected to grow rapidly as port traffic increases. By 2030, the domestic and international strategy is expected to reduce annual emissions of nitrogen oxides (NOx) from large marine diesel engines by about 1.2 million tons and particulate matter (PM) emissions by about 143,000 tons. When fully implemented, this

coordinated effort will reduce NOX emissions from ships by 80 percent, and PM emissions by 85 percent, compared to current emissions.

The emission reductions from the strategy will yield significant health and welfare benefits that span beyond U.S. ports and coasts, reaching inland areas. EPA estimates that in 2030, this effort will prevent between 12,000 and 31,000 premature deaths and 1.4 million work days lost. The estimated annual health benefits in 2030 as a result of reduced air pollution are valued between \$110 and \$270 billion, which is up to nearly 90 times the projected cost of \$3.1 billion to achieve those results.

This rule, under the Clean Air Act, complements a key piece of EPA's strategy to designate an emissions control area (ECA) for thousands of miles of U.S. and Canadian coasts. The International Maritime Organization (IMO), a United Nations agency, is set to vote in March 2010 on the adoption of the joint U.S.-Canada ECA, which would result in stringent standards for large foreign-flagged and domestic ships operating within the designated area.

The rule adds two new tiers of NOX standards and strengthens EPA's diesel fuel program for affected ships.

After the Rule was proposed, Congressional negotiators lobbied EPA to effectively exempt 13 ships that haul iron ore, coal and other freight on the Great Lakes. Negotiators in Washington approved the exemption as part of a natural resources spending bill. "This compromise will allow EPA to go ahead with a new clean air rule without sinking the Great Lakes fleet -- and all the jobs it creates in the region," said Rep. David Obey, D-Wis., chairman of the House Appropriations Committee.

Frank O'Donnell, president of **Clean Air Watch**, a Washington-based advocacy group, said he was disappointed that Obey and Rep. Jim Oberstar, a Minnesota Democrat and chairman of the House Transportation and Infrastructure Committee, had sided with the shippers in talks with the Obama administration. "They deservedly have a stellar record and reputation on environmental issues, but departed in this case to work essentially behind closed doors for a special interest fix for a favored industry," he said.

The 13 Great Lakes steamships are powered by a type of marine fuel that carries about 30,000 parts per million of sulfur. "It's among the filthiest fuel known to mankind -- literally the sludge at the bottom of the barrel after the refining process," O'Donnell said. Under the compromise, the steamships will be exempt.

32. Government of Canada Moves to Reduce GHG Emissions from New Vehicles

On December 7, the Government of Canada released draft regulations to limit greenhouse gas emissions from new vehicles beginning with the 2011 model year. "Our regulations will help create a common North American approach to regulating greenhouse gas emissions from new vehicles," said Environment Minister Jim Prentice. "This is an important step in the fight against climate change."

Canada and the U.S. are working towards a common North American approach to reduce greenhouse gas emissions by introducing aligned and progressively tighter regulatory requirements over the 2011-2016 model years. Because the two countries share a deeply integrated automotive industry, there are significant environmental and economic benefits to an approach that is closely aligned.

Canada is developing stringent regulatory requirements to limit greenhouse gas emissions through the authority of the Canadian Environmental Protection Act, 1999 (CEPA). The release of the draft regulations is the next step in the process that was announced by Minister Prentice in April 2009, and will allow for early consultations with provinces, territories and stakeholders. Following these consultations, proposed regulations are expected to be published in the Canada Gazette Part I for a 60-day formal public comment period.

33. Thieves Cut Catalytic Converters Right Out Of Cars

There's a device under virtually all cars in the US that limits polluted exhaust from entering the atmosphere. It's highly sought-after these days, and not just for the environmental benefits. Criminals have been stealing catalytic converters from cars parked at repair shops and businesses in recent months for the precious metals inside.

Since November 1st, Beverly, Massachusetts has seen three converter thefts, including one reported on December 9th at an auto repair shop on lower Cabot Street. In Salem, a sport utility vehicle parked at the Salem Depot and a vehicle at a repair shop on Bridge Street were targeted in late October.

"(They) contain platinum, and there's a secondary market for that," said Patrolman John McCarthy, the department spokesman. McCarthy said there's possibly a market for used converters. The converters, which are part of the car's exhaust system, can be sold at scrap metal yards for quick cash.

While it may be worth about \$100 as scrap metal, installing a new one can leave you with a bill more than 10 times that amount.

Not all car owners should worry though, McCarthy said. Of the last three thefts of catalytic converters, two pickups and a Nissan Pathfinder were targeted. The common theme among those three vehicles is the high clearance for the criminal to slide under the car and remove the converter with a saw. "It's very easy to get under those vehicles," McCarthy said. "From the standpoint of safety, one thing we suggest is to park your car so access under the car is restricted. Take the necessary precautions."

The spike in converter thefts has sparked the entrepreneurial bug with a Toledo, Ohio, company that sells "Catclamps" online. The device is a cage that can be put over the converter and welded to the car. It sells for \$150 to \$350.

34. Quebec Cars Built Before 1995 Will Have To Undergo Mandatory Inspections.

Quebec is prepared to junk any clunkers that don't meet tough new emissions standards for vehicles. Beginning two years from now, people who own cars built before 1995 will be required to undergo mandatory inspections. Those whose cars don't meet the standard will have to get their cars repaired, or else the cars will be destroyed.

The announcement was made by the Quebec delegation to the United Nations conference on climate change in Copenhagen, Denmark. Quebec hopes its plan will help it achieve a goal of reducing carbon emissions by 20 per cent by 2020.

The crackdown will affect 400,000 car owners in the province. Quebec says the older cars are responsible for 50 per cent of the pollution that's generated on the province's roads.

Under the proposal, cars that are found to be emitting heightened levels of pollution would be repaired or taken off the road. Not every Quebecer can afford a new car and the government has not said if it will compensate drivers whose cars are junked. Officials, however, are pointing to a \$3 million incentive fund that offers free public transportation to drivers who give up their clunkers. Five-thousand cars have been yanked off the road under the incentive plan, says the province.

Environmental groups support Quebec's clunker plan, as do road safety groups who say that old cars cause a disproportionately high number of road accidents.

35. Road Builders Lose Appeal of EPA Clean Air Act Rules

The American Road and Transportation Builders Association, which represents builders and suppliers of highway, airport and public-transportation projects, lost a court bid to force the Environmental Protection Agency to declare that federal law trumps state regulations governing construction vehicle emissions. It waited too long to file its challenge over EPA's enforcement of the Clean Air Act, the U.S. Court of Appeals in Washington ruled.²

ARTBA had argued that provisions adopted 12 years ago to implement the act were vague. The group asked the EPA to make clear that states can't pass laws on emissions from fleet vehicles and large engines that are tougher than the federal law, and filed suit when the agency declined to do so.

"We are without jurisdiction to hear this case," Senior Circuit Judge Stephen Williams wrote for the court. "The petition raises points that could have been brought to our attention in 1997."

Nick Goldstein, assistant general counsel for ARTBA, said the group may appeal. He said the court decision leaves in place a patchwork of state regulations that could idle hundreds of millions of dollars worth of construction equipment nationwide. The ruling "dodges the fundamental question of whether the EPA can allow states to adopt individual fleet emissions regulations under the federal Clean Air Act," Goldstein said.

36. Mexico Program to Encourage Energy Conservation, Efficient Technology

On November 27th, Mexico's Energy Ministry published a list of 26 actions planned by the government to adopt more efficient technology and to encourage consumers and businesses to conserve energy. The National Program for Sustainable Energy Use 2009-2012, published in the Federal Official Gazette, presents objectives for reducing energy use and improving technology in seven areas: transportation, lighting, appliances, energy co-generation, air conditioning, industrial motors, and water pumps.

While the strategies to improve efficiency are binding for government entities, the program proposes future regulations to switch consumers and industry to sustainable energy options and financial incentives and promotional campaigns to reduce their energy use.

² The case is American Road and Transportation Builders Association v. Environmental Protection Agency, 08-1381, U.S. Court of Appeals, District of Columbia Circuit (Washington).

The strategies could reduce energy consumption by up to 18 percent by 2030 compared to current usage, according to the program. Energy consumption in Mexico grew 4.9 percent per year between 2003 and 2008, the program said.

The program calls for the government to publish fuel performance minimums for the sale of cars in various categories, such as new subcompact vehicles, used imported cars, and heavy motor vehicles. It also calls for drafting of new rules to promote the sale of efficient cooling and heating appliances; updating household appliances standards to meet international norms; and finalizing regulations on solar-gas systems for water heating. Under the program, the Energy Ministry is responsible for reviewing and updating regulations on three-phase motors to reduce consumption. It said ministries should remove barriers for energy co-generation by companies that are high energy consumers.

The program proposed offering incentives for trade-ins of old models of light bulbs, household appliances, and motors used by small and medium-size enterprises.

Reducing energy consumption is a primary focus of the program. It said that 90 percent of energy use in Mexico is concentrated in transportation, industrial, residential, and commercial sectors. "These sectors are expected to continue being the largest final consumers of energy in the future," the program said.

The program is part of a series of green commitments made by the administration of President Felipe Calderon in the past year. The sustainable energy use program follows the September publication of regulations under the Sustainable Energy Use Law, which established a process for businesses to become certified as energy-efficient, and the August publication of Mexico's Special Climate Change Program (PECC), which introduced dozens of projects to reduce carbon emissions by 50 million tons per year.

37. Small Car Rush May Create U.S. Oversupply

A new lineup of small cars slated for showrooms next year may create an oversupply of compact vehicles in the U.S. market at a time when gas prices remain stable, according to an industry forecasting firm. Automakers including General Motors and Ford are rushing to launch new fuel-efficient small cars and electric vehicles in 2010 to meet tighter fuel economy standards in the United States and attract buyers that have gravitated toward smaller cars.

However, if gas prices trend steady from today's levels of under \$3 per gallon, "Extreme pressure to channel smaller vehicles in the market due to CAFE and emissions standards will raise incentives and lower profitability", said Michael Robinet, vice president of forecasting at CSM Worldwide.

Automakers are required to raise their fleet wide average to 35.5 miles per gallon by 2016 under a U.S. law aimed at cutting carbon emissions and spurring development of fuel-efficient vehicles.

Globally, automakers and governments are estimated to spend about \$428 billion a year by 2020 under a worldwide push for promoting greener transportation, CSM said. Increasing competition in the subcompact and compact segments, which have long been dominated by Asian automakers, may also hamper Detroit automakers' goal of making money on selling small cars, CSM said.

GM plans to launch its Chevrolet Cruze small car in the U.S. market in the third quarter of 2010, a vehicle it said was capable of reaching 40 miles per gallon in highway driving. GM also aims to launch the Chevrolet Volt electric car at the end of next year. The No. 1 U.S. automaker is counting on a series of upcoming fuel-efficient vehicles like the Cruze and the Volt to revitalize its lineup as it tries to reverse a long-running slide in market share after emerging from a government-financed bankruptcy on July 10.

Ford is set to roll out the Fiesta small car in the United States by early summer and a redesigned Focus compact car later in 2010 -- which the company has touted as two key U.S. car launches next year.

Chrysler Group LLC, under the management of Italy's Fiat, also plans to bring the Fiat 500 subcompact to the U.S. market at the end of 2010.

The trend toward smaller, more fuel-efficient vehicles will continue as the U.S. economy recovers and gas prices start to rise, CSM said, but a gradual increase in prices is not sufficient enough to drive demand for such vehicles. "We need a little bit more than that," Robinet said, citing gasoline taxes or another oil shock as possible catalysts for boosting demand.

38. Canada Issues Report On Sulfur in Liquid Fuels 2007

This report summarizes the 2007 data on the sulfur content in liquid fuels originating from crude oils, coal or bituminous sand. The information was provided to Environment Canada by producers and importers of liquid fuels pursuant to the federal *Fuels Information Regulations, No. 1* of the *Canadian Environmental Protection Act, 1999*.

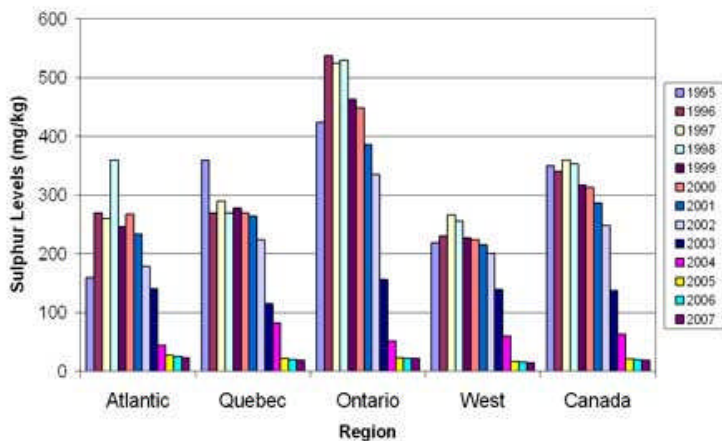
During 2007, there were various developments with respect to federal regulations on sulfur in liquid fuels and other non-regulatory issues:

- The new 500 mg/kg limit for off-road diesel fuel and rail and marine diesel fuel came into effect under the ***Sulfur in Diesel Fuel Regulations***. The limits and timing were:
 - 500 mg/kg for production or imports as of June 1, 2007; and
 - 500 mg/kg for sales as of October 1, 2007.

In late 2006, the new 15 mg/kg limit for on-road diesel fuel was implemented, the effect of which is seen in the 2007 sulfur levels.

- The limits and timing of the various developments with respect to the ***Sulfur in Diesel Fuel Regulations***, in 2006, were:
 - 15 mg/kg for production and import as of June 1, 2006;
 - 22 mg/kg for sales as of September 1, 2006; and
 - 15 mg/kg for sales as of October 15, 2006.

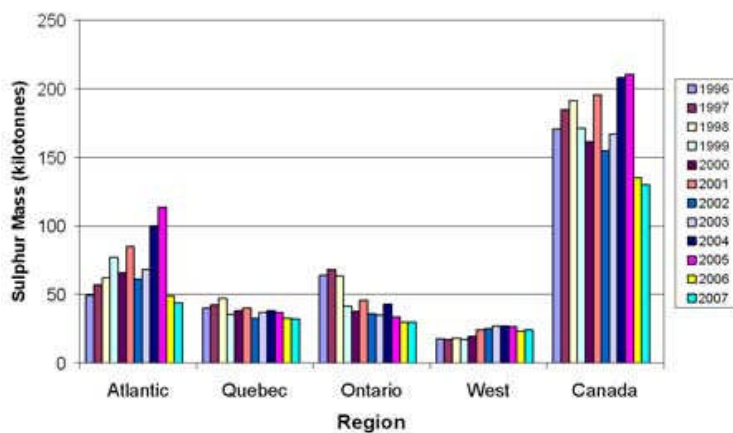
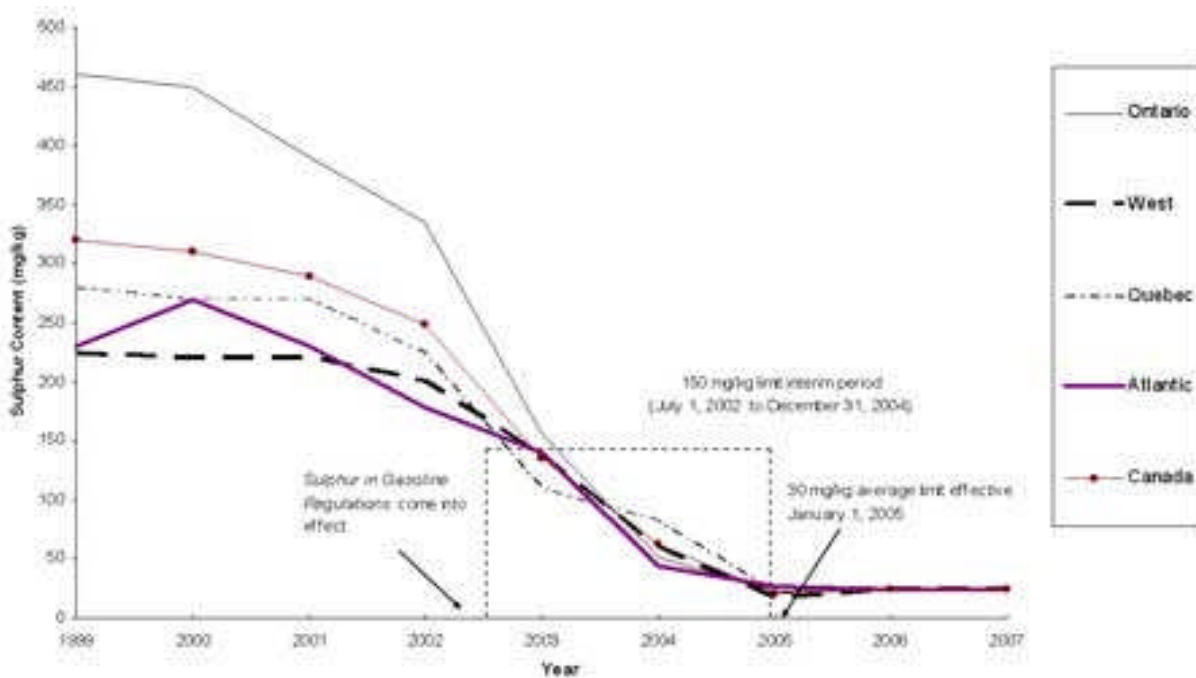
In 2007, the national average sulfur content in gasoline was determined to be **18 mg/kg**, slightly less than 2006 levels (20 mg/kg). [Graph 1.1](#) shows the trend for sulfur content in gasoline nationally and by region for the period 1995 to 2007. Note that the term "West Region" used throughout this report is an unofficial designation for Manitoba, Saskatchewan, Alberta, British Columbia, Yukon, Northwest Territories and Nunavut.



Graph 1.1: Sulfur Levels in Gasoline by Region and Nationally, 1995-2007

The lower sulfur levels beginning in 2005 result from the *Sulfur in Gasoline Regulations*, which came into effect in 2002. The regulations set an average limit of 30 mg/kg commencing in 2005, with an interim limit of 150 mg/kg until then. [Graph 1.2](#) shows the trends in the levels of sulfur in gasoline from 1999 to 2007.

Graph 1.2: National and Regional Trends of Sulfur Content in Gasoline, 1999–2007



Graph 1.3: Sulfur Mass in Liquid Fuels by Region and Nationally, 1996-2007

The reported mass of sulfur content in all liquid fuels nationally decreased by 4% in 2007 from 2006 values, as shown in [Graph 1.3](#). In the West Region, the reported mass of sulfur in all liquid fuels increased by 3% for 2007, mainly due to an increase in the production and importation of

Aviation Turbo Fuel and Heavy Fuel Oil in that region. In the Atlantic, Ontario, and Quebec Region, the decreases were 10%, 1% and 1% respectively.

[Table 1.1](#) shows the national summary of data compiled from Form 1, “Report on Sulfur Content,” which petroleum refineries and importing companies are required to submit to Environment Canada under the *Fuels Information Regulations, No. 1*.

The largest reported volume of liquid fuel produced in or imported into Canada was gasoline, which constituted about 45% of all products, and accounted for about 0.4% of the sulfur mass in liquid fuels. Heavy fuel oil constituted about 8% by volume of the total liquid fuels and contained about 86% of the total sulfur mass in Canada.

Type of Fuel	Fuel Production/ Imports		Sulfur Mass (tons)	Average Sulfur Content (mg/kg)	Distribution of Sulfur in Products (%)
	(m ³)	(% of total)			
Aviation Turbo Fuel	6 695 902	7.20	3 148	581	2.42
Motor Gasoline	41 452 001	44.55	528	18	0.41
Aviation Gasoline	98 055	0.11	2	27	0.00
Kerosene/Stove oil	958 259	1.03	53	67	0.04
Ultra-Low Sulfur Diesel	29 049 870	31.22	102	4	0.08
Low-Sulfur Diesel Fuel	2 760 413	2.97	532	226	0.41
High-Sulfur Diesel	891 910	0.96	1 253	1 631	0.96
Light Fuel Oil	2 521 716	2.71	2 998	1 393	2.30
Heavy Fuel Oil	7 566 589	8.13	111 808	14 831	85.91
Plant Consumption/Other	1 042 582	1.12	9 716	9 237	7.47
TOTAL	93 037 297	100.00	130 140	1 422	100.00

- In the Type of Fuel category, “Plant Consumption” and “Other” were combined for 2007. Fuels reported under these categories included pitch, gasoline-like blendstock, light fuel oil, heavy fuel oil, Orimulsion, intermediate fuel oils (IFO 420, IFO 30-460), diesel and bunker.
- Totals may not add up due to rounding.

39. Canada Proposes Waivers from Fuel Standards during Emergencies

On November 14th, Environment Canada issued proposed regulations that would give the federal environment minister the authority to temporarily waive application of fuel quality

standards to respond to actual or anticipated fuel supply shortages during a declared emergency or national defense situation. The proposed Regulations Prescribing Circumstances for Granting Waivers Pursuant to Section 147 of the Act, issued under the Canadian Environmental Protection Act, would allow temporary waivers of concentration limits for lead, phosphorus, and sulfur in gasoline; of limits for sulfur in diesel fuel; and of reporting requirements for sulfur levels and density in fuels and additives, the department said in an impact statement published in the November 14th Canada Gazette, Part I.

The department noted that the United States has provided a number of such waivers from Clean Air Act requirements during emergencies. For example, emergency waivers were granted following hurricanes Katrina and Rita in 2005 and again during the 2008 hurricane season to help alleviate the effects of storms on fuel supplies.

“Although declared emergencies in Canada are rare, the possibility of such occurrences exists,” the department noted. “If, during an emergency, fuel is unavailable or in short supply, government action to address supply constraints by granting a temporary waiver from fuel quality requirements may be warranted.”

In its impact statement, the department noted that temporarily waiving fuel standards could reduce the benefits of fuel standards for the environment and human health; it stressed that the waivers most likely would cover a short time period. “The granting of a waiver enabled by the proposed regulations would likely be of short duration, and the imposition of appropriate conditions would permit the minimization of any long-term damage to the environment and human health,” Environment Canada said.

The waivers would apply to the Gasoline Regulations, Sulfur in Gasoline Regulations, Sulfur in Diesel Fuel Regulations, and Fuels Information Regulations No. 1.

The proposed regulations are open to 60 days of public comment.

40. Senate Climate Bill Preserves EPA Authority for Now

Cap-and-trade legislation approved by the Senate Environment and Public Works Committee would still allow the U.S. Environmental Protection Agency (EPA) to regulate greenhouse gases. Unlike its House counterpart, the Senate bill does not exempt greenhouse gases from coverage under the Clean Air Act.

The Senate bill, introduced by Senators John Kerry (D-MA) and Barbara Boxer (D-CA), would exempt greenhouse gases from certain parts of the Clean Air Act, including the National Ambient Air Quality Standards program and the hazardous air pollutant program, but still allow EPA to consider greenhouse gas emissions at other times, such as during the pollution permitting process.

The Kerry-Boxer bill would change the definition of “major” air pollution source as it relates to greenhouse gases. Under the bill, a source would not be considered major until it emits 25,000 tons of greenhouse gases in a year. The threshold for major sources is usually 250 tons, but since greenhouse gases are emitted in greater quantities, a higher threshold is warranted.

The choice of the 25,000-ton threshold is no accident. It is what EPA already proposed under a “tailoring rule” it developed, published in the Federal Register and now in a period of public comment. It is what Administrator Jackson has called a “common sense” approach to using the

Clean Air Act to help fight global warming, and removing the threat that EPA would regulate ridiculously small sources of CO2 emissions.

The tailoring rule and another EPA rule that would limit vehicle emission are combining to keep the pressure on Congress to act. Many businesses would prefer cap-and-trade legislation to EPA regulation and are making their opinion know to lawmakers. (Still, any form of climate legislation is likely on hold until 2010.)

41. Ford Vehicle Sales Outlook: 'Worst Is Over'

In November, Ford Motor Co.'s top sales analyst said that U.S. sales appear to be at least as strong as October, indicating the industry may have finally found its footing after one of the worst declines in history. "So far, so good. We won't fall backwards from October," said George Pipas, head of sales analysis and forecasting at Ford. "The worst is over -- both from an economic standpoint and from an automotive standpoint."

However, he warned that the recovery remains fragile, largely because too many Americans remain out of work.

42. Seattle Port Reduces Sulfur Dioxide Emissions by 80%

Ship operators participating in the Port of Seattle's At-Berth Clean (ABC) Fuels Program have reduced emissions of sulfur dioxide by at least 80 percent and diesel particulate matter by 60 percent by switching to a low-sulfur fuel in their auxiliary engines while docked, reports the Seattle Business Examiner.

Vessels participating in the ABC Fuels program, aimed at reducing maritime-related air emissions, agreed to use low-sulfur fuel (0.5 percent or less) in their auxiliary engines while docked in Seattle. In exchange, the Puget Sound Clean Air Agency helps defray the cost of the more expensive low sulfur fuel by providing participating vessels with \$1,500 for each port call

So far 37 ships from six container lines and one cruise line are participating in ABC Fuels, representing about 35 percent of the vessels that make frequent calls at the Port. Sulfur dioxide emissions from those vessels have declined by more than 20 tons.

Participating shipping lines include APL, CMA CGM, China Ocean Shipping Company (COSCO), Hapag Lloyd, Maersk Line, Matson Navigation, and Norwegian Cruise Line.

The port is contributing about \$450,000 this year to the Puget Sound Clean Air Agency for emission reduction activities, including the ABC Fuels program, according to the newspaper.

43. Nissan CEO Says Their Electric Car Strategy is "Unique" in Industry

In Los Angeles, at the United States unveiling of the Nissan LEAF electric car-set to hit showrooms in late 2010-Nissan CEO Carlos Ghosn was enthusiastic and clearly proud of the position the Nissan-Renault Alliance has taken as a leader in the development of electric cars and charging infrastructure. "The LEAF is a new paradigm of the car," said Ghosn. "LEAF represents a totally new transformational technology that will change the way people drive, use, and power their vehicles. And the time is right for this breakthrough."

Citing growing concern over the environment, tougher regulations, and fear over a dwindling supply of crude oil, Ghosn indicated that Nissan has factored these issues into their overall electrification strategy.

"With our alliance partner, Renault, we are taking a position which is unique in our industry which is a comprehensive approach that goes beyond our vehicles alone," noted Ghosn. "Our vision includes lithium-ion battery development and lifecycle management, infrastructure support and collaborative partnerships that educate and engage the public."

"With Renault we are the only ones investing in both battery and vehicle production plants to bring a line up designed for the mass market," he continued. "We are in control of all the core zero emission technologies, especially the batteries that are at the heart of our electric cars. And we are the only ones signing the agreements that build the framework for the successful large scale implementation [of electric cars]."

Recently Ghosn has indicated that Nissan is essentially skipping hybrid-only technology and betting the barn on electric vehicles in an attempt to dominate that space.

Certainly it seems that most of the company's resources are now dumped into electric car development, and with the amount of money the company has clearly spent on Nissan LEAF marketing, it's all or nothing for them. It must be both a terrifying and electrifying (pun intended) time to work at the company.

Along with the US unveiling of the LEAF, Ghosn made the announcement that the next electric vehicle they will bring to the US is an electric version of a Nissan light duty commercial vehicle for city deliveries. And after that will be an Infiniti compact luxury electric car, which, according to Ghosn, will be a "stylish, high-performance four seater."

44. New Insurance Allows Those Who Drive Less to Pay Less

Starting next year, California drivers should be able to buy car insurance the way they buy gasoline. A change in the rules will allow insurance companies to sell "pay-as-you-drive" policies. The idea behind permitting pay-as-you-drive insurance policies is to get Californians to cut down on their driving, which would mean easing air pollution, reducing traffic, and lowering the accident rate.

"No one has to go into this program but if folks want to voluntarily cut back on the number of miles that they drive then this pay-as-you-drive program will produce very significant discounts in terms of how much they pay for auto insurance," said Insurance Commissioner Steve Poizner. Poizner says to sign up for the program you would send in information documenting how many miles you drive and then the insurance company would price your insurance based on how many miles you drive.

45. GM Board Approves Plug-In Cadillac Hybrid: Sources

The board of General Motors Co has approved a plan to produce a plug-in hybrid for the luxury Cadillac brand that will adapt technology developed for the upcoming Chevrolet Volt, according to people briefed on the decision.

The battery-powered Cadillac will be based on the Converj concept GM showed off in January and would become the second extended-range plug-in vehicle in GM's line-up after the Volt,

which is set to launch at the end of 2010. Production of the Cadillac is not expected before the 2013 model year, two years after the Volt's launch.

GM's 13-member board reportedly approved production of the new Cadillac at a regular meeting in Detroit.

The Volt has attracted intense interest as one of the first rechargeable, battery-powered vehicles set to launch in the United States. But GM officials have also downplayed expectations for the Volt's commercial success because of the vehicle's high development costs, high sticker price and limited production. From the start, executives involved in the Volt development effort have said GM's goal would be to find ways to create spinoffs that would help the automaker recoup its investment.

The Volt is set to go on sale in late 2010 in the United States and later in Europe. GM hopes to sell 10,000 Volts the first year and 60,000 in the second year. It is expected to cost about \$40,000 before a consumer tax rebate of \$7,500 in the United States. Even after the rebate, the Volt would be about \$10,000 more expensive than the market-leading Toyota Prius hybrid.

The Volt is being designed to be able to charge at a conventional household outlet and travel up to 40 miles on battery power. When its lithium-ion battery is run down, a small gas-powered engine will start to recharge the battery.

In a departure from past practices, GM's new board is being briefed on product development plans earlier in the cycle and has become far more active in vetting that investment.

46. EPA May Need More Time on Raising Ethanol Blend

The U.S. Environmental Protection Agency may not meet a December 1 deadline to decide whether to approve an industry request to boost the amount of ethanol that can be blended into gasoline, EPA Administrator Lisa Jackson has told reporters.

Growth Energy and 54 ethanol manufacturers petitioned the EPA last March to allow gasoline to contain up to 15 percent ethanol by volume, known as E15. U.S. gasoline is now approved to contain up to 10 percent of ethanol, which in the United States is made mostly from corn.

But the head of the EPA said the agency may have to work past the December 1 deadline because it is still reviewing test results on how the higher blend rate would affect engines "across the board," -- including cars, trucks, snow mobiles, motor boats and lawnmowers.

47. Chrysler Dismantles Electric Car Plans Under Fiat

Chrysler has disbanded a team of engineers dedicated to rushing a range of electric vehicles to showrooms and dropped ambitious sales targets for battery-powered cars set as it was sliding toward bankruptcy and seeking government aid. The move by Fiat SpA marks a major reversal for Chrysler, which had used its electric car program as part of the case for a \$12.5 billion federal aid package.

As late as August, Chrysler took \$70 million in grants from the U.S. Department of Energy to develop a test fleet of 220 hybrid pickup trucks and minivans, vehicles now scrapped in the sweeping turnaround plan for Chrysler announced by Fiat CEO Sergio Marchionne.

Chrysler spokesman Nick Cappa said that an in-house team of electric car development engineers had been disbanded in favor of a more traditional organization. The automaker's former owner, Cerberus Capital Management, had set up a special division called "Envi" -- derived from Environment -- to spearhead development of hybrid technology where Chrysler badly trailed competitors. "Envi is absorbed into the normal vehicle development program," Cappa told reporters.

Under mounting pressure to improve the fuel-efficiency of its line-up, Chrysler announced in September last year that it was developing three electric vehicles and would sell the first of the models by 2010. In January at the Detroit Auto Show, Chrysler upped the ante on its electric car bet by pledging to have 500,000 battery-powered vehicles on the road by 2013, including sports cars and trucks.

But a presentation of Chrysler's five-year strategy by Marchionne made no mention of Chrysler's earlier electric car development plans. Under the Marchionne plan, former Envi chief Lou Rhodes will become the group line executive in charge of electric car development for both Fiat and Chrysler, Cappa said.

Marchionne told reporters and analysts electric cars would only represent "one to two percent" of Chrysler's sales by 2014, equivalent to less than 60,000 vehicles. "Until the (battery) storage gets resolved, I think electric vehicles are going to struggle," he said.

48. MECA Releases Diesel Retrofit Sales Figures for 2008

The Manufacturers of Emission Controls Association (MECA) released the results of its annual survey summarizing the total number of diesel retrofit devices sold by MECA member companies in 2008. According to the results, the total number of diesel retrofit devices (for both on-road and off-road diesel engines) sold in the U.S. (including California) by MECA member companies in 2008 was 31,283. Of this total, approximately 39 percent were diesel oxidation catalysts and 32 percent were diesel particulate filters (includes both passively and actively regenerated filters). This total also includes 6,914 retrofit closed-crankcase filters. In California, 5,606 diesel retrofit devices were sold, of which 96 percent were diesel particulate filters. Worldwide, compared to the results of MECA's 2007 survey, the overall 2008 sales figures remained about the same (43,118 diesel retrofit devices were sold by MECA member companies worldwide in 2008 vs. 44,625 in 2007).

MECA expects sales of diesel retrofit devices to increase over the coming years as more funding becomes available at both the federal and local level to reduce emissions from in-use diesel vehicles. In particular, the U.S. Environmental Protection Agency (EPA) received \$300 million in DERA (Diesel Emissions Reduction Act) economic stimulus funding from Congress in March 2009 to fund clean diesel projects through the agency's National Clean Diesel Campaign (NCDC). And, last month, EPA announced its Request for Proposals (RFP) for \$120 million in FY 2009/2010 DERA funding for clean diesel projects under the NCDC. This clean diesel funding also provides economic benefits by creating jobs and increasing productivity. Using a jobs calculation formula for DERA grants, spending \$10 million on diesel retrofit projects, for example, would create approximately 200 jobs (or job losses avoided). In California, the Air Resources Board's (ARB) in-use on-road diesel vehicle regulation and in-use off-road diesel vehicle regulation are expected to generate significant additional demand for diesel retrofit devices (primarily diesel particulate filters) over the next few years.

49. EPA Study Shows Gains in Auto Fuel Economy

Over the last five years, US vehicle fuel economy has gradually improved as auto manufacturers meet consumer demand for cars that squeeze more miles out of a gallon of gasoline. So says the US Environmental Protection Agency (EPA) in a new analysis of vehicle purchasing trends. That marks a reversal of the decline in the average fuel economy of vehicles sold in the US between the late 1980s and the early years of the present decade.

"For both carbon dioxide emissions and fuel economy, the last five years reverse a longer-term trend over the period 1987 through 2004 and essentially return carbon dioxide emissions and fuel economy levels to those of the early 1980s," EPA said. "The projected model year 2009 value of 21.1 miles per gallon (mpg) represents a 1.8 mpg, or 9%, increase over the 19.3 mpg value for 2004 -- which was the lowest fuel economy value since 1980," the agency added.

Meanwhile, carbon dioxide emissions for vehicles sold this year are expected to average 422 grams per mile (g/m), down from 461 g/m in 2004.

EPA also pointed out that the average fuel economy of vehicles sold in 2008 exceeded initial expectations because auto makers likely adjusted their business plans as oil prices hit a record \$147 a gallon. The spike caused retail gasoline prices to reach \$4 a gallon and higher in many US regions.

EPA had been anticipating average fuel economy of 20.8 mpg fuel for vehicles sold that year based on production data submitted by manufacturers, but the actual result amounted to 21 mpg.

"Cleaner, more efficient vehicles can help reduce our dangerous dependence on foreign oil, cut harmful pollution, and save people money -- and it's clear that's what the American car buyer wants," said EPA Administrator Lisa Jackson. "American drivers are increasingly looking for cars that burn cleaner, burn less gas and won't burn a hole in their wallets."

Independent analyses of US vehicle sales show similar trends. According to Autodata, small passenger car sales have declined by only 5% this year. In contrast, consumers have purchased 24% fewer large cars, 35% fewer small SUVs and 45% fewer large SUVs year-on-year.

In an effort to accelerate the increase in fuel economy, the Obama administration announced in May that it will require an average of 35 mpg by 2016 -- four years earlier than originally planned.

The recent improvements in fuel economy have occurred despite a steady increase in sales of heavy-duty vehicles. Truck sales rose from 45% of sales in 1998 to an estimated 49% of sales this year. Similarly, average vehicle weight has increased from 3,700 pounds 10 years ago to 4,100 this year.

Sales of those large vehicles have been "primarily driven by the explosive increase in the market share of sport utility vehicles (SUVs)," the agency said.

"The SUV market share increased from 6% of the overall new light-duty vehicle market in 1990 to about 30% of vehicles built each year since 2004," officials added.

Honda continues to lead the US in sales of fuel-efficient vehicles, with the company's fleet expected to average 23.6 miles per gallon this year, up from 23.3 mpg in 2007.

Hyundai-Kia and Toyota fall just behind Honda in the 23 mpg range after raising the fuel economy of their vehicles in recent years.

50. Raising Taxes Key to Boosting Fuel Efficiency Say Executives

There's a simple way to get Americans to drive fuel-efficient cars, according to auto executives, but they are not going to like it -- sharply hike the gas tax. While politically unpalatable, gasoline that costs at least \$4 a gallon would have a far greater effect on American fuel usage than Washington's \$25 billion loan program meant to spark investment in new technologies, executives told the Reuters Auto Summit in Detroit.

Consumer demand for fuel-efficient cars like Toyota Motor Corp's Prius and Ford Motor Co's Escape hybrid surged last summer as gasoline prices soared above \$4 a gallon. But with the pressure off -- the average U.S. retail gas price was \$2.66 a gallon at the end of October, according to the benchmark Lundberg survey -- Americans are once again buying fuel-hungry sport utility vehicles and other large cars.

Gradually raising gas taxes to the point where fuel costs \$4 to \$5 at the pump will do more to stimulate demand in next-generation vehicles like General Motors Co's forthcoming Chevy Volt plug-in hybrid than any other policy initiatives, including raising the national fuel efficiency standards known as CAFE, Mike Jackson, chief executive of AutoNation Inc, the No. 1 U.S. auto retailer, told the summit. Jerry York, a former GM board member and an adviser to billionaire investor Kirk Kerkorian, agreed.

The obvious impediment to such a move is political. Higher fuel prices in the midst of a fragile economic recovery would likely be extremely unpopular even with consumers who favor "green" issues and less dependence on foreign oil.

As long as tax rates raised gradually, higher fuel prices would not become an onerous burden on consumers, the auto executives said. A floating tax rate would also smooth out sharp swings in the price of gasoline, which tracks the sometimes-volatile oil market.

51. Ford Van to Go All-Electric In 2010

Ford is driving closer to its goal of producing an all-electric car with the announcement of an electric van for North America for 2010. The Ford Transit Connect BEV will incorporate a drive train from Azure Dynamics and lithium ion batteries from Johnson Controls-Saft. The van will get 80 miles before needing to be charged and will be sold into fleets, according to Ford Manager of corporate news Jennifer Moore. She said Ford will produce the van in low volumes and has not announced any customers so far.

Azure Dynamics, which Ford had worked with before, was brought in to replace Smith Electric Vehicles as the drive train partner. Moore said that Smith has decided to focus on medium duty trucks. Today Smith Electric Vehicles announced it was working on a prototype electric postal delivery vehicle with AM General for the US Postal Service.

Ford hasn't committed to Azure Dynamics -- or anyone else -- as a long term partner for its other EVs in development. Moore said Azure Dynamics' extensive experience in building components for electrified vehicles made them an attractive partner.

Johnson-Controls-Saft will be the company's battery partner moving forward. In development are a Ford Focus EV for 2011, as well as an unnamed PHEV vehicle for 2012.

ASIA-PACIFIC

52. SIAM Seeks Extension of BS-IV Emission Norms Deadline Beyond April 2010

A number of Indian auto manufacturers are in continuous dialogue with the Indian government seeking extension of the 2010 April deadline regarding emission norms which have to be enforced in 11 Indian cities and BS-III compliance in the remaining cities. There are fears that fuel companies will not supply relevant upgraded fuel to suit engines which would be produced to meet these emission norms leading to poor performance or even adverse effects on the vehicle engines.

The National Capital Region (NCR), Mumbai, Chennai, Kolkata, Hyderabad, Bangalore, Pune, Agra Ahmedabad, Kanpur and Surat were earmarked for Bharat Stage IV (BS IV) emission norms, while the remaining cities were meant for BS III norms. In the present scenario, BS III-compliant vehicles can still be supplied BS II fuel without any fear of damage to equipment. However, allegedly the same cannot be said for a BS IV car driving into BS II territory and using fuel there as the equipment will just not be able to handle inferior fuel which will have higher sulfur content.

According to an unnamed senior representative of a leading automobile company, "Mismatched or lower grade fuels can adversely affect car engine performance as they function at optimum as per fuel specifications. It calls for engine upgradation of already manufactured vehicles, modification to exhaust systems whereas some engines may not be sustainable."

Oil refiners acknowledge a gap in being ready for the industry to meet the new Euro IV norms but are confident they will make the deadline. A majority of the refineries in India have upgraded their installations but few without the necessary upgrades remain in Uttar Pradesh, Bihar, North East and Bengal. Since it is a capital intensive process, government is taking every measure to upgrade these refineries as soon as possible, as reported by a business daily. However, it is unlikely that the BS III auto fuel will be available across the entire country because the time is just too short for oil companies to have a supply network in place.

"It is a matter of concern that there is some ambiguity on whether the right quality of fuel will be available by April 1," said Dr. Pawan Goenka, president, Society of Indian Automobile Manufacturers. He added, 'The vehicle makers were concerned due to uncertainty over the supply of cleaner fuel and wanted a clear picture. Else please do not implement the new norms and delay them. Auto industry should be informed in advance if there is any deferment so that we can make the required adjustments to our programs as well,' Goenka told the press.

However, oil marketing companies such as Indian Oil, Bharat Petroleum and Hindustan Petroleum have reaffirmed that they will be ready by April in most of the country. "Our refineries are ready for Euro III and Euro IV petrol but Euro IV diesel will take some more time of around a year," said Arun Balakrishnan, chairman, HPCL to a leading newspaper, adding, "Even then we will source whatever is required from Essar and Reliance."

53. A Big Buzz Around Small Cars in India

Next month's Delhi Auto Expo will put a fleet of eagerly awaited roadsters on show, including half-a-dozen small cars. The new compact cars will come from Toyota, Honda, Volkswagen and General Motors, among others, with some available already. The expo starts in the first week of January. Compact cars getting attention include the Chevrolet Beat from General Motors with its 1.2-litre petrol engine. The Beat, which could emerge as a compelling choice in the segment, will compete with Maruti Suzuki's Ritz and Swift and Hyundai's i10. GM is not letting on about the price but the market insists it's likely to cost roughly Rs 3.5 lakh.

Volkswagen Polo, the first small car for the Indian market from the European number one, will also debut at the expo. Available with both petrol and diesel engines, the Polo is VW's most ambitious attempt to make inroads into the Indian market, which is why the company will probably price it aggressively. With a likely price upwards of Rs 4 lakh when it's launched in March, the Polo will compete with Hyundai's i20, Maruti Swift and Honda Jazz.

The expo will also see Toyota debut in the small-car segment with a concept model meant for the market a year later. Toyota says the final car will be pretty identical to the one on show and the petrol version will be launched before the diesel. Maruti, which dominates the small car segment with its half-a-dozen models, will also unveil its concept for a compact multi-utility vehicle, something that is not in its stable so far.

54. Air Pollution Continues To Soar In Mumbai, Says MPCB

Even as the state takes stock of the new stringent ambient air quality standards that the Centre announced recently, levels of respirable suspended particulate matter (RSPM) and nitrogen oxide levels have been soaring in Mumbai since 2005 due to vehicular traffic, the Maharashtra Pollution Control Board (MPCB) officials said. According to the annual report of average air pollution made by the MPCB during 2005-08, while sulfur dioxide has always remained within its previous permissible limits of 60 µg/m³, nitrogen oxides (NO_x) have shown an upward trend averaging 86 µg/m³ in 2008. RSPM has always remained higher than the previous standards of 100 µg/m³ in Mumbai. In 2005, Mumbai saw an average of 180 µg/m³ RSPM concentration; in 2006 it was 220 µg/m³; in 2007, 194 µg/m³ and in 2008, 202 µg/m³. The new standards of ambient air quality are 50 µg/m³ of SO₂, 40 µg/m³ NO₂ and 60 µg/m³ of RSPM in industrial as well as residential and rural zones.

Mahesh Pathak, member secretary of MPCB, said that Mumbai has historically seen high RSPM levels, with a yearly average of almost 200µg/m³ since 2005. He said that vehicular traffic in Mumbai was primarily responsible for this pollution while in Navi Mumbai it was the concentration of industries.

The main online air quality monitoring stations in Mumbai are in Sion, Mulund, Bandra, Parel and Kalbadevi. A day to day reading done by the board between November and December show that RSPM has constantly remained high in Mulund while in Bandra and Sion, both RSPM and NO_x have exceeded the limits.

In Sion, between November 18 and December 7, RSPM levels soared above 100 µg/m³ and NO_x exceeded 80µg/m³. On December 3, Sion saw the highest pollution with 340µg/m³ RSPM and 194µg/m³ NO_x. The residential zone of Mulund also saw RSPM as high as 190 µg/m³ on several days between November 8 and December 7. The month's average was 161.17µg/m³.

In Bandra, while a few days saw low suspended particles, the overall trend saw RSPM higher than 200 µg/m³. On one recent day, Bandra saw a record high 289 µg/m³ RSPM.

Pathak said, "Even in residential areas, it is impossible for the suspended particulate matter to drop below 60µg/m³, the new permitted ambient air standards. We have noticed that on average working days, and even on weekends, the permitted SPM levels remain between 55-80 µg/m³ in Mumbai. Only after 3 am, when the traffic slows down does the SPM levels dip below 55 µg/m³. It would be almost impossible to maintain the ambient air quality levels as per the new standards."

At Navi Mumbai's the scene is a bit more heartening either with the average RSPM in Vashi hovering around 106.15 µg/m³ and in Airoli between 198.04 µg/m³.

55. EPCA's Chairman to Apprise Supreme Court about Deterioration in Air Quality

The chairman of Supreme Court's Environment Pollution (Prevention and Control) Authority (EPCA) Bhure Lal assured that he would apprise the Supreme Court about the status of air quality in cities, the slow conversion of the diesel running vehicles into CNG contributing to air pollution and the non-implementation of enforcement laws in curbing pollution.

On being asked about what action he would initiate for the agencies that have not been enforcing upon the pollution norms, Lal said: "We are the policy makers and not the law enforcing body. We have reviewed the situation of the city and have realized that despite the enforcement laws, they are not being implemented." There are proposals for opening more CNG stations in Kanpur, but the problem is the under utilization of CNG as a majority of transport still runs on diesel. "

Expressing his views on the issue of Copenhagen, Lal said the country should not concentrate on the views of US else it may affect its financial growth as the power consumption is directly linked with GDP growth of India.

Speaking upon measures to upgrade the air quality in the city, he said fast moving traffic causes less pollution. "Bus Rapid Transit (BRT) is an answer for the fast movement of traffic. In addition to the plantation of more trees, the individuals should change their lifestyle. The carbon dioxide emission in 2005 was 32 billion tons which would grow to 42 billion ton by 2030."

He suggested that improvement in the public transport, recycling and proper disposal of waste, conversion of solar energy into commercial use and restriction of the entry of the vehicles from registered areas into the city's territory.

56. 'High Density of Population Causes Rise in Pollution'

The efforts to curb air pollution in the city might not be successful. The reason is the rise in the population. Cars and two-wheelers together in the city cause nearly 80 percent of the total energy consumption of 0.1 million tons of oil equivalent per year in the transport sector.

These finding were revealed during the analysis of recent air quality data done by Centre for Science and Environment (CSE) which was released during a public meeting - 'Kanpur City Dialogue on Air Quality and Transportation Challenge: an Agenda for Action'. The meeting was organized jointly by Uttar Pradesh Pollution Control Board and CSE.

Further, the analysis revealed that dependence on personal vehicles is rising steadily as a result of which congestion is growing and peak hour traffic is slowing down.

Addressing the meeting, chairperson of the Supreme Court's Environment Pollution (Prevention and Control) Authority (EPCA) Bhure Lal said: "With an increase in the vehicles and absence of coordinated efforts including strict enforcement, pollution is likely to rise in the coming years."

The associate director of CSE, Anumita Roychowdhury, pointed that the city meets nearly 60 percent of its travel needs through public transport. "Cities need to redesign their existing space and travel pattern to help the majority of people and use efficient modes of transport that can be an alternative to personal vehicles," she added.

The senior researcher Vivek Chattopadhyay who carried out the study highlighted the contributing factors behind the rise in the air pollution. He said: "Rapidly growing number of vehicles, high levels of industrial activities and growing use of diesel generators accounts for deteriorating air quality.

On the occasion, Dr Mukesh Sharma of IIT-Kanpur said biomass production produces over 17-18 percent of the pollution while 15-18 percent of the pollution is caused through vehicular emission in the city. Comparing the situation of Kanpur to Delhi, he said: "Although the city's population is just one-fourth of the capital, the population density of Kanpur is much higher. It, therefore contributes for more pollution. The only solace is the conversion of more and more diesel and petrol run vehicles into CNG."

Managing director of Central UP Gas Limited (CUGL) SL Selvam informed that at present there are seven CNG stations in the city and 16 CNG stations are proposed by year 2013. Further, slow rate of vehicle conversion is also one of the causes of air pollution. The average CNG dispensed is not even half of the capacity creation of CNG in the mother stations.

Also present was BP Pundir who voiced for declaring few areas of the city as no vehicle zone. Divisional commissioners L Venkateshwarlu emphasized that people should take the initiative and contribute to the environment and check the air pollution. He was of the opinion that the besides district administration, civic awareness also is must to curb the air pollution. On the other hand, district magistrate Anil Kumar Sagar proposed mobility plan for the city.

57. Japan Rejects U.S. Criticism of "Clunkers" Program

The Japanese government rejected criticism that its 3.7 billion "cash for clunkers" program unfairly excluded U.S. Big Three automakers -- GM, Ford and Chrysler, the Detroit News reported.

Satoshi Miura, a consular official in the Japanese embassy in Washington who handles auto issues, said U.S. manufacturers could participate if they followed the same import rules as many others. Instead, U.S. companies opt to use a set of rules that do not require the same emissions testing. "The short answer is Japan believes that our program is fair," Miura said. "We have our 'cash for clunkers' program, but this is not only about stimulus but also for environmental policy."

Detroit's Big Three automakers urged the U.S. government Thursday to take action over what they labeled Japan's discriminatory "cash for clunkers" program. In a letter to the deputy U.S. trade representative, GM, Ford and Chrysler called the program "another example of Japan continuing efforts to discriminate against imported vehicles." The program makes "the vast

majority of imports ineligible for the program's significant tax cut benefit, regardless of the vehicle's fuel efficiency," the letter said.

Japan is providing up to a tax cut of 2,830 U.S. dollars for scrapping a car 13 years old or older toward the purchase of a new vehicle, as long as it meets the 2010 fuel efficiency requirements and an incentive of 1,130 U.S. dollars for new vehicle purchasers who do not scrap a vehicle.

The U.S. government said it was raising the issue with its Japanese counterparts and agreed that changes must be made.

58. Volkswagen Aims For A Tenth of India Market in 4 To 6 Years

Volkswagen AG, which recently took a stake in Suzuki Motor Corp. to step up its presence in India, said it aims to grab 8 percent to 10 percent of the country's market share in the next four to six years. The German automaker on Saturday launched production of its Polo hatchback, which had its European debut earlier this year, in its plant in western India.

59. Mercedes Sees Its 2009 China Sales Up More Than 60 Percent

Mercedes-Benz brand sales are expected to grow more than 60 percent year-on-year in China with appetite for the flagship E- and S-class sedans expected to be a key driver of future sales. China's demand for luxury cars helped Mercedes parent Daimler AG achieve a new sales record in China for every month of this year, the company said.

60. Honda CEO Says Clean Diesel Too Tough

In a recent interview Honda's CEO says that making clean diesel vehicles is too challenging for his company. He says that his company would prefer to launch a mass-market fuel cell vehicle like the Honda FCX, but is currently unable to, due to lack of infrastructure. He also said that EV is a possibility, but that EV's aren't much fun.

Honda's 2010 Insight hybrid vehicle has done moderately well, but been outsold by the Toyota Prius.

Takanobu Ito has been CEO of Honda since February. In a recent interview with Autocar.co.uk, Ito opened up about a variety of topics, including challenges facing his company. Honda has long struggled under the role of playing second fiddle to Toyota in the green car market, despite being the first Japanese automaker to offer a limited-release hybrid vehicle.

Mr. Takanobu blames his company's salespeople in Europe for failing to convince customers that Honda is greener than Toyota (at least in the European market). He states, "Our European sales people are largely to blame. We tried to enhance our position with the Civic hybrid but failed. But the CR-Z and Insight will help us enhance awareness that Honda is a green car maker. We also want to introduce the FCX to Europe and have started testing here."

He says that plans to offer more hybrid models in the U.S. or Europe, which has fewer Honda models, aren't likely. He says his company thrives on efficiency and that more models would be damaging. On the topic of platform reduction, he says that his company is working on that. He states, "We will try to reduce the number of platforms, but this will take time."

When asked about why the company's clean diesel research was dropped, he blamed how tough it was to develop the technology. He states, "It was too challenging to produce a commercialized clean diesel. We got it to work at a research and development level, but we couldn't make it work commercially."

He sees electric vehicles as a possibility, but inferior to fuel cell vehicles. He states, "The performance of batteries is evolving and there are possibilities. But the energy that can be stored is less than an internal combustion engine can produce, and with current battery technology electric vehicles are city commuters." He adds, "Honda has, from an early stage, worked on fuel cell vehicles. Battery EVs are heavy, not fun to drive and aren't reliable, and when it comes to cars lighter is better. FCVs are going in that direction."

He says that fuel cell cost cuts are going well, stating, "We can do cost reduction and mass production of the technology. It's simple to produce fuel cells; it's the chemicals they use that cost money, along with the precious metals. But we can cut the cost of those, too." However, he says FCVs (fuel cell vehicles) are unlikely to hit the mass market anytime soon due to lack of a hydrogen fuel infrastructure.

61. Indonesian Government Vows Cleaner Transportation

The Ministry of Environment is continuing its effort in promoting Environmentally Sustainable Transportation (EST) in regions. This commitment was shown through organizing a workshop appropriately titled, "One Vision, One Action towards Environmentally Sustainable Transportation." This event is part of the Blue Sky Program which has been conducted since 2005 aiming to control air pollution from mobile sources through the implementation of policies in a coordinated and integrated manner. 125 people from 26 cities and 4 regional institutions, namely Environmental Agency, Transportation Agency, Motor Vehicle Tax Department, Regional Development Board and Center for Environmental Management, gathered to discuss thematic issues ranging from a walkability index to the development of an exhaust gas emission test. Issues and concerns raised during the workshop were put into a "Statement of Support and Commitment in Improving Air Quality through Sustainable Transportation in Regions", that was declared during the end of the workshop. In this statement, government vows to support efforts in controlling air pollution from motor vehicles as well as to improve the management system and transportation network system that is more integrated and environmentally friendly.

62. Japan Considering Tougher Fuel Efficiency Standards Starting in 2020

The Japanese government has begun planning for tougher fuel efficiency standards for vehicles at the end of the next decade, according to government officials. At a meeting to be convened later in December, the Agency of Natural Resources and Energy and the Motor Vehicle Transport Bureau will "bandy about new numbers" for fuel efficiency targets that automakers would have to meet in 2020, a senior official of the agency's Energy Policy Division said. The agencies are under the Ministry of Economy, Trade, and Industry and the Ministry of Land, Infrastructure, and Transport, respectively.

The higher standards would help Japan limit greenhouse gas emissions. The targets would be set according to the Ministry of Economy, Trade, and Industry's "top-runner" approach, meaning automakers and importers would be asked to match or exceed the fuel efficiency level of the current best-performing model, the official said.

The current standards require a passenger car with an engine of 1.9 to 2.1 liters to get 9.4 kilometers per liter (22.1 miles per gallon) by 2015. Other targets are set for the whole range of gasoline, diesel, and liquid propane gas-powered passenger vehicles, commercial vehicles, trucks, and buses according to their engine sizes.

The 2015 industry average target for passenger cars is 18.5 kilometers per liter (43.5 miles per gallon). The 2015 standards were set in 2007.

"We need to raise the targets to much higher levels for reducing greenhouse gas emissions from motor vehicles and also to ensure that the Japanese auto industry will remain the makers of the world's best fuel-efficient and clean automobiles," according to Akihiko Hoshi, deputy general manager of the transport ministry's Automobile Environment Division.

Asked what targets the two ministries consider viable, Hoshi and a senior Agency of Natural Resources and Energy official said the corporate average fuel economy standard needs to be comparable to the European Union's 2020 target, which a European Automobile Manufacturers' Association official in Tokyo identified as 24.5 kilometers per liter (57.6 miles per gallon). The U.S. Environmental Protection Agency and National Highway Traffic Safety Administration have proposed an average fuel economy of 35.5 miles per gallon (15.1 kilometers per liter) by model year 2016.

Hoshi and the agency official said the two ministries would spend a year or so in setting the 2020 standards and proclaim it as the next target in 2011. After a one-year notice period, the standards would be adopted in 2012. Because improvements in the fuel efficiency of existing gasoline engines are seen to be nearing their limit, automakers are expected to mobilize hybrid, diesel, and other power trains while exploring technology for weight reduction, Hoshi said.

63. Toyota to Sell Plug-In Hybrids to Consumers in 2 Years

Toyota Motor Corp will begin selling "affordable" plug-in hybrid cars in 2011, upping the ante on General Motors and Nissan Motor as they aim to take the lead in the field of rechargeable cars. Toyota's first plug-in model, the Prius Plug-In Hybrid (PHV), adds an external charging function and more batteries to the popular Prius to enable longer-distance driving on electricity alone.

Because it can also run on gasoline, plug-in hybrids -- such as GM's upcoming Volt due for sale next year -- eliminate the "range anxiety" seen as one of the main shortcomings of battery-powered pure electric cars. The Prius PHV can travel 23.4 km (14.5 miles) using only the electric motor, making a short commute possible on zero emissions, Toyota said. On a full charge and full tank of gas, the car could theoretically travel 1,400 km (870 miles), it said.

Nissan's pure electric Leaf car due for sale in 2010 has a range of 160 km (100 miles) on a single charge.

Toyota, the world's biggest automaker and by far the top seller of gasoline-electric hybrid cars, said it would aim to sell "several tens of thousands" of plug-in hybrid cars to the general public in an "affordable" price range.

Executive Vice President Takeshi Uchiyamada, Toyota's R&D chief and father of the original Prius, declined to specify a price range but indicated it would likely be far cheaper than 3 million yen (\$33,770). "Nowadays in the United States, they sell after-market kits for about 1 million yen

(\$11,260)" to convert a hybrid car into a plug-in, he told a conference. "Of course, we would have to do much better than that as a mass producer."

The third-generation Prius starts at 2.05 million yen in Japan and \$22,400 in the United States.

Uchiyamada said he expects the mass-produced plug-in cars -- which may not take the shape of the Prius -- to be sold globally.

The Chevrolet Volt, on track to become the first mass-market plug-in hybrid in the United States, could cost as much as \$40,000 before a \$7,500 consumer tax credit is applied, GM has said. The U.S. automaker expects to sell about 10,000 Volts in the first year of production and 60,000 in its second full year.

Toyota will begin leasing its Prius PHV globally this month, starting with 100 to the French city of Strasbourg. By mid-2010, it will have about 600 on lease, mostly to governments and businesses in Japan, the United States and Europe.

"The arrival of these new generation plug-in hybrid vehicles in our urban landscape will open a new chapter in our transport policy," Strasbourg Mayor Roland Ries said at a hand-over ceremony in Tokyo. Strasbourg has 300 recharging stations and has been a leader in efforts for sustainable mobility.

The Prius PHV would be Toyota's first to employ lithium-ion batteries, which are costly but can store more energy than the nickel-metal hydride batteries used in most gasoline-electric hybrid vehicles today. The Prius PHV can reach a top speed of 100 km/h (62 mph) in the electric motor mode and gets a combined EV and hybrid mileage of 57.0 km/liter (134 mpg). It emits just 59 grams of carbon dioxide per kilometer, as measured under European rules.

Despite carrying about 120 kg of extra batteries, the Prius PHV gets Japanese listed mileage of 30.6 km/liter in hybrid-only mode, slightly better than the regular Prius because the bigger battery can more efficiently capture lost energy during braking and coasting, Uchiyamada said.

Toyota said the Prius PHV could halve the running cost of traveling 30 km compared with a regular Prius when using cheaper, nighttime electricity. The car can be fully charged in about 100 minutes at 200 Volts and three hours at 100 Volts.

GM's Volt is designed to run for 40 miles on a single battery charge. Unlike Toyota's two-motor series parallel hybrid system, GM uses a conventional engine to generate electricity to power the motor when the battery is empty.

64. Beijing Said To Have 'More Room' For Cars

Environmental officials have said that the city's pollution should not worsen when the car population exceeds four million next month. The Beijing municipal environmental protection bureau said at a press conference that the positive prediction referred to the fact that city has removed more than half of its 200,000 high-polluting vehicles from streets this year.

"This contributes to a reduction of 25 percent of the total car emissions in Beijing," Li Kunsheng, director of the vehicle emission management division of the bureau, told reporters.

The bureau said the government has spent 290 million Yuan by providing cash relief to owners of the 100,181 vehicles phased out.

While residents continue to worry that more pollution will arise from the fast growth of traffic, currently growing at a rate of 2,100 cars per day, Li said the slashed emissions would more than compensate. "This leaves more room for Beijing's roaring car population," he told reporters.

"The total number of high-polluting cars emits more than 200 tons of pollutants each day. The emissions from one of these cars roughly equals 20 conventional cars," said He Kebin, a professor with the department of environmental science and engineering at Tsinghua University.

Beijing has been using cleaner fuel that meets the Euro IV standard since 2008 to cut emissions. The city has also been running a no-car day campaign since April, which is based on license plates.

The Beijing municipal commission of development and reform also announced new plans to add 500 electric taxis by the end of next year. Though the number is less than 1 percent of the city's total taxi population, the city commission said the technology will be applied to 20,000 buses and cleaning vehicles in coming years.

Beijing's sky was recently covered by a layer of haze. Twenty-five out of 28 of the city's air pollution monitoring stations reported the air as "unhealthy".

65. Beijing Has 4 Million Vehicles

Beijing has registered 4,001,426 vehicles and 5,679,000 drivers, the publicity office of the municipal government said on December 18th. The numbers of vehicles and drivers jumped 497,000 and 536,000 respectively from that of last year, it said.

Beijing will continue its efforts to encourage people to travel by less polluting means such as taking the public transport system, it said. More than 4.8 billion people have traveled via public transportation this year, about 13.6 million passengers per day, up 11.1 percent from that of last year, according to the Beijing Public Transport Group.

However, the rapid increase in the number of vehicles did not deteriorate Beijing's air quality, Du Shaozhong, vice director with the municipal bureau of environment protection, told Xinhua. Du attributed the result to the city's continued efforts in waste control, including raising waste discharge standards, improving fuel quality, eliminating polluting vehicles and strengthening supervision and examination of those vehicles in service.

66. China Debates Battery-Powered Bikes

China's vast population of battery-powered bikes is the focus of an uproar after new rules ignited public fears, and hopes among some, that these pack mules of the nation's economic boom could be run off the road.

China's image as the land of the bicycle has been fading as its rising wealth has boosted ownership of cars and, for the less well-heeled, "e-bikes": bicycles with battery-powered motors as well as small pedals to distinguish them from motorbikes.

But the spread of the e-bike has struck a policy pothole after the national standards agency issued rules threatening to rein in the bigger models, favored by traders and couriers hauling loads. The Standardization Administration of China resurrected 10-year-old rules saying that electric bikes weighing over 40 kg or able to go faster than 20 km (12.4 miles) per hour should count as motorbikes, and suggesting riders of such bikes would need the licenses they had long done without.

A week of public debate, industry lobbying and media reports ensued about the potentially costly licenses and the possibility that bigger e-bikes would be priced out of the market. Last week, faced with growing clamor, the administration issued a statement on its website (www.sac.gov.cn) repeating the rules, but it also said it was up to province and city governments to decide how to enforce any registration demands.

The debate has revealed a nation divided between love and hate for electric bikes -- and consumers and businesses who increasingly feel they should have a say in government rules about what they can buy and make.

China's ruling Communist Party keeps a tight lid on public discussion of politics. But in consumer rights and other less sensitive areas, citizens and industry groups are becoming bolder, a trend echoed in the e-bike debate.

"Maybe the government likes to meddle in other people's business so much that it invented such stupid, unreasonable rules", said Zhao Lijun, a beefy 47-year-old deliveryman using his electric bike to deliver meat and vegetables to restaurants. "I'm almost in my 50s, and my physical strength is far from enough for me to ride a pedal bicycle the whole day."

More than public feeling is at stake. China has nearly 2,000 manufacturers allowed to make e-bikes and they have been producing 21 million each year, said an official at the bicycle industry association, which represents many manufacturers. The bike batteries also drive much lead demand.

E-bikes usually jostle with pedal-power bikes in special lanes on city streets. Riders also mount sidewalks, and in the eyes of harried residents, the e-bikes can be quietly menacing missiles of steel, lead and rubber.

Many Chinese cities, including Beijing, ban or strictly limit motorbikes, and restrict the size of e-bikes. But in the free-for-all of urban Chinese traffic, it is not uncommon to see speeding e-bikes in spills and head-on collisions. "They are even not licensed, the electric bikes," said Wang Fuhe, a Beijing taxi driver. "So they have nothing to fear. They hit pedestrians and cars then run away, barely traceable."

E-bike makers have denounced the rules as a move to protect motorcycle makers and state-owned companies whose business has been crimped, Chinese newspapers have reported. Local industry groups have demanded public hearings, the reports have said.

"Virtually all of the manufacturers of electric bikes are private businesses," said Gong Xiaoyan, head of the e-bike industry association of Tianjin, a port city near Beijing, according to the Chinese-language 21st Century Business Herald. "This standard will push these small and medium-sized businesses to the brink of extinction," he said. "Clearly that is at odds with the government's demands for social stability."

But making and discarding the bulky rechargeable batteries are environmental worries, said Robert Earley, who works for the Innovation Center for Energy and Transportation in Beijing, a group encouraging green transport. Few bikes come with lighter, cleaner lithium batteries. "The bikes use lead-acid batteries that weigh about 4 or 5 kilos each. You multiply that by 21 million and that's an awful lot of lead," he said.

67. Renewables to Supply One-Third of China's Energy By 2050

China's renewable energy strategy through 2050 envisions renewable energy making up one-third of its energy consumption by then, the China Daily said. By 2020, renewable energy should account for 15 percent of national primary energy consumption, supplying the equivalent of 600 million metric tons of coal, according to the China Daily. It cited a renewable energy blueprint laid out by Han Wenke, director-general of the Energy Research Institute under top planning body, the National Development and Reform Commission. By 2030, renewable energy's share should rise to 20 percent of the national energy mix, displacing 1 billion metric tons of coal, Han said, and by 2050, it would supply one-third of China's energy, displacing two billion metric tons of coal, the paper said.

China's drive for renewable energy to mitigate the health and environmental costs of coal has brought its own challenges.

Wind power generating capacity has surged so fast that policy planners now warn of severe overcapacity in the sector, and dam after dam piled on Chinese rivers distorts water flow, endangers fish and poses a potential earthquake hazard.

China's installed wind power capacity is now 12.17 million kilowatts, up from 350,000 kW in 2000, and large-scale solar energy facilities are planned, the paper said.

China is also focusing on non-grain bioethanol and biodiesel, to avoid diverting grains from food and feed supply.

68. China Law Forces Clean-Energy Use

China has announced new regulations to increase the use of renewable energy such as wind and hydropower by forcing electricity-grid operators to prioritize their use, in an effort by the world's top greenhouse-gas emitter to reduce its reliance on coal. The new measures were passed on December 26th by the standing committee of the National People's Congress, China's legislature, as an amendment to the 2006 renewable energy law, the state-run Xinhua news agency said. The amendment will force state-owned electric grid companies, which are responsible for distributing electricity from power plants, to buy all the electricity generated from renewable sources even when it is more expensive and more complicated to use than electricity from coal-fired plants.

Coal currently accounts for 70% of China's total energy use. China wants to increase use of renewable-energy sources to 15% of its total by 2020, up from 9% last year. The goal is related to a separate target announced by top leader Hu Jintao last month ahead of the Copenhagen climate summit to reduce China's carbon emissions relative to economic output by 40% to 45% from 2005 levels by 2020. The absolute levels of emissions will continue to grow, however, as China's economy expands.

The government's efforts have encouraged a boom in renewable-energy development in China that has added more generation capacity than China's electricity grid has been using. That has left between a quarter and a third of China's wind farms stranded.

Other countries that are promoting renewable energy have similar laws in place. Still, China faces difficulties implementing it. China's electricity grid operators need to develop a smarter network to handle how to dispatch electricity generated by wind or solar energy, which fluctuates widely depending on weather patterns, with demand for power, which swings in different cycles.

69. Pollution Takes Toll on Health in Guangdong

More than 41 percent of people in the Pearl River Delta have felt sick or uncomfortable this year because of the region's heavy pollution, a recent survey found. Most suffer from diseases like cough, sore throat and upper respiratory infections, or feel agitated, depressed or can't sleep.

The survey, conducted by the Guangdong provincial social research and study center early this month, interviewed more than 2,000 residents in nine Pearl River Delta cities.

An official from the center said the province's environment and ecology have been sacrificed to achieve rapid economic growth. The Pearl River, the second largest in flow capacity in China, has been seriously polluted by industrial discharges along the river. More than one-fourth of the residents do not dare to drink local tap water.

Air pollution is also a serious concern for residents. Cities in Guangdong experienced an average of more than 75 hazy days last year, a record high since 1949. Guangzhou experienced more than 110 hazy days last year. Haze is usually caused by suspended particles in the air that reduce visibility. It is often a mixture of aerosols and photochemical smog.

Wu Dui, a researcher from the Guangzhou Institute of Tropical Oceanic Meteorology, said industrial and vehicle emissions are the main culprits causing haze.

70. Urban Air Pollution in Indonesia at Alarming Levels

Activists are warning against air pollution in Indonesian cities which they said had reached alarming levels. Based on daily monitoring, urban residents inhaled healthy air less than two months per year due in large part to poor transportation management.

A group of activists and government officials from the State Ministry for the Environment and the Transportation Ministry established a Forum for Indonesian Clean Air as part of its mission to push for sustainable transportation management to minimize air pollution.

"The air quality has frequently been dangerously unhealthy. The country needs extra efforts to clean the air through sustainable transport management," Ahmad Safruddin, who initiated the forum, told reporters. Ahmad, who is also the chairman of the Indonesian Lead Information Center (KPPB), said that poor quality of fuels, gas emissions and poor law enforcement were exacerbating the country's transport system problems.

"The facts show that only Bandung and Semarang residents have been breathing healthy air for more than one month per year since 2001. Other metropolitan areas including Jakarta,

Surabaya and Medan enjoy less than 27 days of healthy air [per year],” he said. Ahmad added that all air pollutant parameters exceeded tolerable limits set by environmental authorities.

Motor vehicles are a major source of air pollutants in Indonesia’s major cities.

The government regularly monitors levels of pollutants, namely particulate matters (PM10), sulfur dioxide (SO₂), nitrogen oxide (NO_x), carbon monoxide (CO), lead (Pb) and ozone (O₃).

Ahmad said the forum would focus on policy reform and public education to improve air quality in the country. Deputy assistant for pollution emissions control at the State Ministry for the Environment, Ade Palguna, concurred and said air pollution in big cities had reached critical levels. He said his office also faced difficulties with a limited number of air quality monitoring devices outside the big cities.

The ministry installed air quality monitoring equipment in Jakarta, Bandung, Denpasar, Medan, Pekanbaru, Pontianak, Palangkaraya, Semarang, Surabaya and Jambi several years ago.

The 2009 Traffic Law requires all vehicles operating in Indonesia to meet government emissions standards. Indonesia has claimed that it has implemented the low emissions Euro II standard since 2008, requiring sulfur content in diesel fuels to be kept at or below 500 parts per million (ppm).

However, many luxury and new vehicles still used subsidized diesel containing pollutants, including sulfur. The ministry’s study shows that 50 percent of 7,865 diesel fuel vehicles tested in 2008 failed to meet standards because they used subsidized fuel.

71. BPLHD Holds Free Emission Tests In Monas

The Jakarta Environment Board (BPLHD) and mechanic shops held free emission tests Monday at the National Monument (Monas) park. The free emission tests marked the last of a series of campaigns on emission test law enforcement in the last month.

BPLHD head of environment education Rahmat Bayangkara said that the test booths could accommodate more than 800 cars. Car owners working around the area were expected to check their cars there. Mechanic shops from Nissan, Chevrolet, Astra World, Suzuki and Astra Honda Motor participated to give out services.

Each car owner that has passed the emission test will receive a sticker and a small book that shows the car has passed the test.

Vehicles without an emission test sticker indicating they have not been tested or failed in the emission test will be ticketed when extending their vehicle registration document (STNK). This is aimed to improve the air quality of Jakarta.

Peni Susanti for Jakarta Local Environment Management Board said it would be easier to apply some sanction in the vehicle registration document extension. “Vehicles which failed in emission test will be ticketed for sure,” she said after the emission test program in National Monument. According to her, this socialization and implementation of ticketing will involve the police department. The socialization should be done in order that next year the sanction can be effectively applied.

Meanwhile, Ridwan Pandjaitan stated the program implementation should be based on Act No 22/2009 about Traffic and Transportation. If the program is based on bylaw No 2/2005 about Air Pollution Control, the process of punishment is too long. "It is easier to use the first regulation to punish the violators with Rp 500,000 fine or two months in jail," Pandjaitan stated.

The Local Environment Management Board will make coordination with Jakarta Dept. of Transportation for ticketing the public transportation. It is because the emission test for public transportation will be held on roadworthiness test (KIR).

The results of the emission testing at National Monument are that 354 gasoline fueled and 80 diesel vehicles out of 474 vehicles passed the test. The rest, 33 gasoline fueled and seven diesel vehicles failed the test. There were 163 motorcycles tested, 147 passed and 16 failed.

To realize the clean and healthy air, city administration has prepared 25 areas as the emission test sticker zones. Five of them have applied the sticker such as in Dharmais Hospital, Sahid Hotel, PT Marina Berto, Jakarta Local Environmental Management Board Office, and PT Dankos.

The rest of places will implement it step by step. Those are Ciputra Mall, Senayan City, Jakarta City Hall, North Jakarta, West, South, East, and Central Jakarta Mayor Offices. Some others are Trisakti University, Dharmais Office, UKI Hospital, Pondok Indah Mall I, Pondok Indah Mall II, Kelapa Gading Mall, PT Jiep, PT CMNP, PT Tri Dharma Wiesa, and PT Inti Ganda Persada.

"Those areas are also preparing emission test equipment for vehicles without emission test sticker. The failed vehicles must go away from the area," she added.

Jakarta Governor Fauzi Bowo said Sunday the city administration would only allow cars that have passed emission tests to use the city offices' parking areas. "We are moving forward on air quality improvement. Beginning Monday, two parking areas in the city hall will only allow cars that have emission test stickers to park inside," Fauzi said during Car Free Day at the Hotel Indonesia traffic circle in Central Jakarta.

"This policy will also be applied in other city offices. This is our way of raising public awareness about the importance of emission testing," he said.

"The companies, universities, and city administration that want to take this step are members of the Clean Emission Appreciation Movement. We are a group that aims to improve air quality," he said.

Fauzi Bowo also officiated at the city's first air quality monitoring station on the same day. The city spent Rp 5.5 billion to build the 6-square-meter station, which is equipped with various electronic tools that can measure air pollution in the area. The station's machines are directly connected to the BPLHD's data center.

Though Fauzi said that his administration has been doing its best to improve the city's air quality, he had not decided when the administration would begin the long planned mandatory testing. "Someday, we will surely make the emission test mandatory, but everything must be prepared first," said Fauzi.

72. Unhealthy Air Pollution in Delhi As Commonwealth Games Approach

A series of news articles were published on the air quality in Delhi in October and November. With the Commonwealth games around the corner (October 2010), the debate on air quality in Delhi and athletes health during the games will take center stage (Times of India, November 1st, 2009), similar to the air quality debates in Beijing for the Olympics Games 2008.

The Indian Express on November 9th, 2009, reported that the PM levels jumped from about 170 micrograms/m³ on October 17th to 345 micrograms/m³ on October 18th, hovering between 250-230 micrograms/m³ since.

A substantial portion is due to the winter inversion phenomenon and Delhi's own local sources. A source apportionment study conducted in the past reveals a split in the sources of air pollution between summer and winter months, with biomass burning dominating the winter months and enhanced by low inversion. Currently, a series of construction activities in and around the city (domestic, metro and flyovers) and re-suspension of dust along the roads are contributing significantly to the particulate pollution.

The impact of air pollution on the human health and the ecosystem is increasingly being linked to the growing transport sector.

The diurnal variation of the mixing layer height is very pronounced in Delhi, which effects the night time concentrations. This is very important for the cities like Delhi, where the diesel operated trucks are allowed to pass through the city only at night, and thus enhancing the night time ambient concentrations. However, since the population exposed to these higher concentrations of PM (mostly diesel soot) and other pollutants is lower during the night time, the impacts of the night time emissions are generally less observed. However, the high concentrations observed during the night tend to linger during the rush hours (mixed with the passenger travel) and beyond (through ~11 AM) and hence increasing the exposure times and related health concerns along the major corridors.

Delhi is averaging close to 1,000 new vehicles a day adding to the traffic problems and the road particles are adding to the exposure to harmful pollutants and increasing health risk.

The air quality in Delhi improved in the early 2000's due to a number of interventions, including the large scale conversion of the bus fleet and the 3 wheeler fleet from the conventional gasoline and diesel to compressed natural gas. However, the large increase in the demand for personal transport and construction activities reversed the trends.

A major intervention that Delhi is counting on is the extension of the metro rail system, to shift the motorized transport trends to the metro rail system. The expected level of shift is uncertain. An analysis conducted by UrbanEmissions.Info reveals a possible reduction of at least 7 percent in the criteria pollutant emissions in 2010, by the introduction of expanded metro rail system in Delhi.

With the Commonwealth Games around the corner, a lesson from Beijing to Delhi is very obvious. The involved institutions need to focus more on the air quality - not only improving the number of monitors that the city already operates, but also better understanding the sources, the contributions of in-city and outside-city pollution sources, the hot spots of industrial and residential areas (many of them outside the Delhi area, but included in the National Capital Region), a series of interventions which could make effective air quality management (given Delhi will not be able to shut down industries nor stop half their in-use fleet during the games), and above all, an open information dissemination platform.

73. High Court Decision on Diesel-Run Vehicles Eagerly Awaited

State transport authorities as well as the auto rickshaw unions are impatiently waiting for the decision of the Punjab and Haryana High Court on modification of its previous orders that banned the registration of diesel-run autos and buses in three major cities including Amritsar, Jalandhar and Ludhiana. The decision on their pleas is slated for the next court hearing on November 17.

Notably, the state government was going to get a fleet of 300 buses from the Central government under Jawahar Lal Nehru National Urban Renewal Mission (JNNURM) Scheme, but as all these buses were diesel-run and in its previous orders the court had banned the registration of diesel-run commercial vehicles, the delivery of buses was stopped. Thereby, the transport authorities applied for modification in the HC's previous orders until they could arrange for CNG and LPG fuel pumps in these cities.

However, the auto rickshaw unions are also waiting for some relief as the permission to register their newly purchased autos hangs on the HC's decision. Om Prakash Jodha, president Auto Rickshaw Union said drivers who have just purchased their vehicles are at great loss as the registration of their auto rickshaws is hanging fire. He hoped the court would modify its previous orders.

Giving information, Sumeet Mahajan, representing the case in the high court said that the transport authorities have applied for modification of the previous HC orders so that they could add a new fleet of buses to the three cities under the Central scheme. "The decision regarding it would be taken in the next court hearing," he said.

Talking to the TOI, DS Jaspal, state transport secretary said they were waiting for the orders of the high court and then they would decide their further course of action. He informed that they were trying their best to arrange for more LPG fuel pumps in these cities.

The authorities have assured the court that they would try to arrange sufficient LPG supply in these three major cities of the state by May 2010. As principal secretary, of the local bodies, D S Bains has already revealed that the CNG pipeline cannot reach the state before 2012, the transport authorities were now concentrating on ensuring supply of LPG at the fuel pumps

74. India Tightens Air Quality Standards

Indian Environment Minister Jairam Ramesh announced new air quality norms on November 19th, setting uniform standards for residential and industrial areas. The Revised National Ambient Air Quality Standards 2009, which have been published in the official Gazette of India, are designed to provide a legal framework for control of air pollution and protection of public health.

Previously, air quality standards for industrial areas were lower than in residential areas. The new guidelines, which come 15 years since the last set of norms was issued, were modeled on norms adopted by the European Union and recommended by the World Health Organization, a press release issued by the environment ministry said.

Environmentalists welcomed the move. “The government has finally attached priority to health over protecting industrial interests,” Anumita Roychowdhury, associate director of the Delhi-based Center for Science and Environment, said in a statement.

The revised guidelines add five hazardous chemicals to the list of chemicals that must be monitored under the National Ambient Air Quality Standards. These are ozone, arsenic, nickel, benzene, and Benzo(a)Pyrene (BaP).

The permissible limit for sulfur dioxide and oxides of nitrogen in industrial areas will be lowered to 80 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$) averaged over 24 hours, on par with the norm for residential areas and down from the previous limit of 120. The limit for fine particulate matter—2.5 microns in diameter or smaller—will be 60 $\mu\text{g}/\text{m}^3$.

The standard for suspended particulate matter in industrial areas will be lowered from 360 $\mu\text{g}/\text{m}^3$ per 24-hour period to 140. Permissible lead levels in industrial areas per 24-hour period will be lowered from 1.5 $\mu\text{g}/\text{m}^3$ to 1.

For some dangerous pollutants such as ozone and carbon monoxide, standards for short durations—up to a few hours—have been set to reduce peak exposure. This will be beneficial for people with respiratory and cardiac problems during days of poor air quality, Roychowdhury said.

The revised standards will be applicable uniformly, but the standards for oxides of nitrogen and sulfur dioxide will be more stringent in ecologically sensitive areas. More stringent limits for lead, oxides of nitrogen, and sulfur dioxide have been prescribed for residential areas too.

A press release issued by the ministry points out that while mercury is not included in the revised standards, the ministry plans to monitor it. Research and development in standards setting and standardization of monitoring protocols for mercury is still in progress internationally, it noted.

The Central Pollution Control Board has been asked to create a road map for creation and maintenance of a database and monitoring of the required infrastructure for enforcing these norms.

The previously existing National Ambient Air Quality Standards (NAAQS) were notified by the Central Pollution Control Board (CPCB) in year 1994 under the Air Act, 1981 for seven parameters i.e., Suspended Particulate Matter (S PM), Respirable Particulate Matter (RPM), Sulfur Dioxide (SO_2), Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), Ammonia (NH_3) and Lead (Pb). The Central Government has thereafter also notified NAAQS for six parameters in the year 1996 under the Environment (Protection) Act, 1986.

The review of the previous NAAQS and inclusion of new parameters was undertaken by the CPCB in association with the Indian Institute of Technology, Kanpur. The proposal for revision in NAAQS was deliberated upon extensively and has been notified under the Environment (Protection) Act, 1986 on 16.11.2009 by the Ministry of Environment and Forests. The CPCB has initiated the process of harmonizing its notification under the Air Act, 1981 with the revised notification so as to ensure the efficient implementation of the new standards.

These revised Standards include initiatives that have been developed in consonance with global best practices and in keeping with the latest advancements in technology and research.

The Ministry is also in the process of developing additional support systems of enforcement such as the National Environment Protection Authority (NEPA) and the National Green Tribunal (NGT) to ensure the effective enforcement of the Standards.

The Center for Science and Environment (CSE), a leading NGO working for the cause of the environment has welcomed the new standards. "CSE has been demanding these norms, proposals for which have been languishing with the ministry for over three years. It has been a long and protracted battle, and we have fought very hard for them," said Anumita Roychowdhury, associate director, CSE and head of its Right to Clean Air Campaign.

She added: "With pollution levels going up in almost every Indian city, this was urgently needed to raise the bar of protection for public health."

Although the standards are tighter now there is still an urgent need for controlling the increasing numbers and dieselization of car fleets. "We need measures that will restrain the use of cars and encourage the use of public transport," says CSE director Sunita Narain.

Diesel vehicles are known to be bigger polluters as they emit higher smoke, particles and NOx.

In Delhi over 1000 new cars or personal vehicles hit the road every day. According to the Society for Indian Automobile Manufacturers (SIAM), market share of diesel cars is expected to be 50 percent of total car sales by 2010.

75. Reliance, Essar, Shell Push for Freeing Petrol, Diesel Prices

With global oil rates stabilizing at around \$70-80, Reliance Industries, Essar Oil and Royal Dutch/Shell today joined the chorus for freeing petrol and diesel prices to give the private sector a level playing field as well as also lowering government's subsidy burden.

Freeing prices would mean an Rs 3.85 a liter increase in petrol and Rs 3.71 per liter hike in diesel rates but the move would help state firms who are reeling under a severe financial constraint in the absence of the promised subsidy from the government.

In separate presentations to the Kirit Parekh Committee on Fuel Pricing Reforms, the three firms said the oil sector was the only sector where the subsidy was limited to public sector firms, driving private competitors out of business.

State-run Indian Oil (IOC) favored freeing auto fuel pricing but wanted the Government to first commit upfront to meet in cash the revenue lost on selling LPG and kerosene.

Oil and Natural Gas Corp (ONGC) said it was willing to share fuel subsidies but the mechanism should be transparent wherein incremental revenues it earned beyond a pre-decided threshold can be automatically parted for the same.

Currently, upstream firms like ONGC are asked to pick up the revenue retailers IOC, BPCL and HPCL lose on selling petrol and diesel. The revenue they lose on LPG and kerosene are met through issue of oil bonds but none have been issued this fiscal.

76. Reliance Reopens 900 Petrol Pumps

Reliance Industries Ltd has reopened 900 petrol pumps, which were shut down when state firms were selling heavily subsidized fuel, the head of the firm's refinery business, P. Raghavendran, said. "Mostly these are in western and southern India. Wherever we can operate at PSU (public sector unit) prices, we are operating," he told reporters on Tuesday.

In March last year, a Reliance official said the company was shutting down 900 company-owned pumps as subsidized sale by state firms made private sales unviable. Reliance Industries, India's biggest conglomerate, also sold fuel through 500 dealer-operated pumps.

Essar Oil Ltd, the only other private refiner in India, and Reliance had together captured about 17% of domestic retail market for diesel and accounted for 10% of petrol sales by 2005 before heavily subsidized sales by state-run firms knocked them out of the arena.

When crude oil prices more than halved in three months from their \$147 (around Rs6,850 today) a barrel peak scaled in July 2008, retail sales by private firms became viable again, prompting Essar to say it would reopen most of its 1,250 fuel stations.

But Reliance Industries adopted a more cautious approach and a company official said on October 2008 that the firm would reopen its pumps only if the government changes its policy of subsidizing only the fuel sold by state-run retailers.

The Union government subsidizes fuel sales to control inflation.

77. Australia's Vehicle Emissions Continue To Improve

The peak body representing the Australian automotive industry, the Federal Chamber of Automotive Industries (FCAI), has welcomed a report from the National Transport Commission (NTC) that highlights the improvement in emissions from new vehicles. "The report confirms the industry is ahead of schedule in meeting the existing target of 222 grams of CO₂/kilometer by 2010," FCAI's Andrew McKellar said.

"The industry has achieved a 12 per cent reduction in emissions in six years but the work has not stopped and new technology is being continuously rolled out to further improve this result," he said.

"This study provides a valuable snapshot of new vehicle emissions and will be a useful input as the industry and government consider future strategies for continued progress," Mr. McKellar said.

"Motorists are well informed when buying a new vehicle with a sticker displayed on the windscreen of every new car advising of its carbon emissions per kilometer," he said.

"It is important to remember that any move to significantly reduce real-life vehicle emissions must also look at the existing vehicle fleet, road congestion and public transport," Mr. McKellar said.

78. Diesel Version of E-Class Introduced by Mercedes to the Indian Market

Mercedes Benz has introduced the diesel version of its popular E-Class sedan in all major Indian markets. The new model is powered by a 2,987 cc 6-cylinder engine and equipped the

BlueEFFICIENCY technology which is aimed at reducing fuel consumption, as has been confirmed by the company.

Earlier this year, the Germany based maker of high-end cars had said that it is expecting lower sales figures for 2009 as compared to 2008. But with the new introduction, the company has been quick to roll that back and say that it is now optimistic about recording good sales starting next year.

With an ex-showroom price tag of Rs. 48.08 Lakh, the luxury sedan is expected to perform even better than the units which were launched earlier. Last year, Mercedes recorded sale of 3,625 of its models across India.

79. HCM City Sees No Decline in Air, Noise Pollution

Pollution caused by exhaust fumes, dust and noise in HCM City has not declined over the last year, according to the city's Environment Protection sub-department. The agency reported early this month that tests at the city's six observation stations showed that up to 89 per cent of air samples exceeded the acceptable maximum pollution levels.

Particles from exhaust fumes and dust were the major pollutants, it said.

The leading air pollution factor was exhaust fumes released by the increasing number of vehicles plying city roads and the discharge of untreated smoke from production units.

Under a five-year plan ending in 2010, the city had set several targets in order to reduce air pollution, including lowering the number of individual vehicles and controlling exhaust fumes released by production units. However, the number of vehicles has continued to increase in recent years. By the end of last year, the city had more than 4 million motorbikes and 300,000 automobiles of various kinds, according to official figures. Nearly 60 per cent of motorbikes do not meet emission standards, the sub-department said.

80. Hazy Conditions Disrupt Air Travel in China

Poor visibility delayed about 280 domestic and international flights serving Beijing, the capital's airport said, following several days of heavy air pollution. "As of 3 pm today, about 280 flights in and out of the airport experienced delays," an official in the information centre of Beijing Capital Airport told AFP.

The flight woes followed several days of poor air quality in the nation's air transport hub, underlining China's stubborn environmental problems even as it plays up its eco-awareness ahead of a global summit on climate change.

An airport statement attributed the poor visibility to "a heavy attack of fog" that reduced visibility to as little as 50 meters (55 yards). "Fog" is typically used by the government to describe haze from air pollution.

Flight delays, cancellations and even road closures also were reported by state media in other parts of the country, some of which were blamed on locally poor visibility.

Fog caused a four-hour closure of the main airport in Chengdu, capital of southwestern Sichuan province in the morning, delaying 105 flights and stranding more than 10,000 passengers, Xinhua news agency said.

In Beijing, official government data widely viewed as downplaying the city's pollution woes have shown air quality readings spiked to "slightly polluted" in recent days.

But problems such as air pollution remain stubborn due to China's rapid industrialization in recent decades, prioritization of economic growth over environmental protection and soaring sales of cars and other pollution sources.

81. Exxon Mulls Clean Diesel Project At Singapore Refinery

U.S. energy major ExxonMobil (XOM) is evaluating investments in its Singapore refinery to produce clean diesel to meet the region's growing demand for cleaner fuel products, its chief executive said on CNBC. The company is expanding its integrated refinery and petrochemical complex in the city state, which will become its largest downstream facility in the world.

"The petrochemical plant will start up in a number of phases beginning in 2010 and will be full up in 2011," Exxon CEO Rex Tillerson said on CNBC.

Asia-Pacific demand for energy products will grow 1.8 percent annually in the next 20 years as China, the world's second-biggest energy user, increases fuel consumption, said Tillerson. More than one-third of the growth in global power generation demand in the next 20 years will come from the region, while fuel-product demand will grow more than 50 percent, he told Asia-Pacific Economic Cooperation leaders in Singapore.

Demand is "being driven by growth in car fleets, more transportation capability, maritime freight transportation," said Tillerson. "It's also driven by enormous growth in demand for chemical feedstocks." China is expected to double its current power capacity in the next two decades and quadruple the number of cars on its roads, he said.

Oil prices have gained more than 70 percent this year on signs that the global economic recovery will spur fuel demand. The International Energy Agency increased its forecast for 2010 global oil demand as the pace of economic recovery in Asia and the Middle East picks up.

Global oil consumption is likely to average 86.2 million barrels a day next year, 140,000 barrels more than previously estimated, the adviser to 28 nations said in its monthly report on November 12th. The IEA also raised its estimate for consumption this year to 84.9 million barrels a day, up 220,000 barrels from last month's estimate.

82. Sinopec's Fujian Plant Up, Running

China's largest refiner Sinopec Group has officially started commercial operation of the country's first joint venture integrated oil refining and petrochemical complex, which is expected to help meet the growing domestic need for fuels and chemical products. The facility, located in Quanzhou, Fujian province, has a total investment of around 40 billion Yuan (\$5.86 billion), and is jointly owned and operated by Sinopec, US oil major ExxonMobil and Saudi Aramco, the national oil company of Saudi Arabia.

Sinopec has a 50-percent stake in the venture, while ExxonMobil and Saudi Aramco hold 25 percent each.

It is also China's largest integrated refining and chemical plant. The integrated production facility will ensure the development of China's petrochemical industry, Sinopec Group President Su Shulin said. The complex is also expected to improve oil products supply in Fujian and the coastal area.

The integration of oil refining and chemical production in one area means the project can make the best use of energy and reduce the environmental impact significantly, analysts said. The Fujian complex can produce 7.46 million tons of refined oil, 1.28 million tons of plastics and huge amounts of other chemical products a year. Annual sales from the integrated plant will amount to 60 billion Yuan, according to Sinopec.

The petro-complex will mainly process crude from Saudi Arabia, the largest oil-producing country in the world. China has now become one of the top three markets for the Middle Eastern country's oil exports, and the country is one of the quickest-growing markets, said Khalid Al-Falih, Saudi Aramco's chief executive.

Around half of Chinese oil demand is met by imports. At present, the Middle East, Africa and the Asia Pacific region are the three main oil import regions.

China's oil products consumption was 215 million tons last year, up 12 percent from a year earlier, according to the China Petroleum and Chemical Industry Association. Estimates are that this year's oil consumption would see only a 3-percent growth due to the economic downturn. China's refined oil demand growth was expected to touch 8 percent next year due to a recovery in demand.

The country will build three or four oil refining bases in the Pearl River Delta, Yangtze River Delta and Bohai Sea-rim economic zone.

83. China Raises Gasoline, Diesel Prices

China will raise both gasoline and diesel prices by 480 Yuan (\$70.28) a ton, the National Development and Reform Commission (NDRC) announced on its website. The benchmark price of gasoline will be 7,100 Yuan a ton and diesel will be 6,360 Yuan a ton, according to the NDRC.

The retail price of gasoline will climb by 0.36 Yuan a liter. Diesel will go up by 0.41 Yuan a liter.

84. Japan Forms Next-Generation Auto Committee

Japan's Ministry of Economy, Trade, and Industry, in conjunction with automakers and energy companies, founded a "next-generation automobile strategy committee" on November 4th, the ministry announced. The committee will develop a strategy for government-business joint research and development of next-generation batteries for hybrid and electric vehicles. The panel also will study other means of improving vehicle fuel efficiency and reducing carbon dioxide emissions, an official of the ministry's Automotive Division said November 6th. Among new technologies that the panel will explore are next-generation catalytic converters; materials that can replace lithium, which is used in lithium-ion batteries; and vehicle weight reduction, according the official. The panel will meet in closed sessions and is expected to make recommendations by spring 2010. The committee includes top executives of Toyota, Honda,

Nissan, and other Japanese automakers, as well as oil refiners and electric and electronic companies.

85. Japan's New Government Considers Tax Breaks for Green Cars

A new fossil fuel tax and an extension of green taxes on cars are among the major fiscal 2010 tax proposals submitted to the government of Prime Minister Yukio Hatoyama on October 30th. Motohisa Furukawa, vice cabinet office minister, said November 1st in a government broadcast that the Hatoyama administration intends to repeal gasoline and other provisional taxes charged on fossil fuels and instead introduce a "global warming mitigation tax."

Japanese voters gave a resounding victory to the Democratic Party in general elections on August 30th.

"The gasoline and other [fossil fuels-related] provisional taxes have been in place for building roads," Furukawa said. "Since we do not plan to build new roads, it contradicts our policy to continue collecting those taxes, so we plan to repeal them." At the same time, he said, because the government has "been exploring a global warming mitigation tax, we want to consider it in [a] way that would be acceptable to taxpayers." Furukawa did not provide details of the planned tax, including whether it would be lower than the gasoline and other provisional fossil fuel taxes.

The new tax was proposed by the Ministry of the Environment.

The one-year gasoline tax has been renewed every year, almost automatically, under the Liberal Democratic Party for the past 54 years. The tax is 53.8 yen (61 cents) per liter.

Another proposal would extend and widen a program of exemptions from road, tonnage, and vehicle acquisition taxes for vehicles that meet fuel consumption standards. Vehicle tax rates vary according to vehicle weight, and engine size.

The Ministry of Finance is expected to complete a final fiscal 2010 tax draft by mid-December and submit legislation to the Diet, or legislature, in January 2010.

86. China Eyes Closing Coal-Fired Power Plants in Capital

China is considering moving the last four coal-fired power and heating plants out of Beijing's municipal area, replacing them with gas-fired stations, state media has reported, in an effort to improve air quality in the capital. "The existence of a number of coal-fired power plants in urban Beijing does not conform with the city's positioning as a metropolis," Zhang Guobao, head of the China's National Energy Administration (NEA), was quoted as saying in the China Energy News.

"While the heat supply to Beijing residents must be ensured, coal-fired stations that need to be relocated must be relocated, and building gas-fired plants with advanced environmental protection technologies is a first choice."

No timeframe was mentioned for the possible move, and it was not clear where the plants would be moved to if such a decision were approved.

The four plants, owned by Huaneng Power International, Datang International Power Generation Co Ltd, China Shenhua Energy and Beijing Jingneng Thermal Power Co Ltd, have a total power generating capacity of about 2.7 gigawatts (GW).

The plan, if it is implemented, would further drive up gas demand in Beijing, which already tops demand rankings among Chinese cities. Beijing consumed more than 5 billion cubic meters (bcm) of gas in 2008. Beijing's gas consumption by power plants alone would reach 13 bcm by 2020 if all coal-fired plants switch to gas turbines, far above earlier plans, Vice Mayor Huang Wei was quoted as saying. As a result, construction of gas pipelines, liquefied natural gas facilities and underground storage tanks need to be accelerated, Huang said.

Petro China, the dominant gas supplier for Beijing, has two pipelines sending gas from Shaanxi province that combined have shipping capacity of 20 bcm per year.

Petro China has the ability to meet Beijing's future gas demand from residents, heating and power generators, Zhao Zhongxun, vice general manager of Petro China, was quoted as saying. The top Chinese oil and gas firm has started early-stage work for a third pipeline, linking Shaanxi to Beijing, while a fourth line is also being planned, according to Zhao. The third Shaanxi-Beijing gas pipeline, at 822 kilometers, is designed to have transportation capacity of 12 bcm per year.

Beijing's power consumption rose to a record of more than 14 GW in August, and more than two thirds of the supplies were generated from outside Beijing.

Coal-fired plants produce about 80 percent of China's national electricity output.

87. China's BAIC Launches New Energy Auto Subsidiary

Beijing Automotive Industry Holdings Co (BAIC), China's major carmaker, has launched a new energy company in Beijing to produce pure electric and hybrid cars. The affiliated Beijing New Energy Automotive Company is responsible for the R&D, manufacture and sales of key auto parts, electric cars, hybrid cars and charging systems, according to BAIC.

The company is expected to have an annual output of 20,000 to 40,000 new energy cars in 2011 with its own brand "Beijing."

BAIC displayed a "Beijing" electric car numbered "BE701" at the launching ceremony. The maximum speed of the car is 160 km per hour and it can run 200 km once charged up to its full, which takes one to 10 hours depending on the charging mode.

The "Beijing" electric car uses 12 kilowatt-hours of electricity every 100 km. It can save more than 5,000 Yuan (\$732) in fuel costs every 15,000 km compared with the gasoline-driven cars.

BAIC is expected to have annual sales revenue of 15 billion Yuan from the new energy cars in 2015, accounting for 5 to 10 percent of its total sales revenue.

88. Shanghai Seen As Big CO2 Producer

Total carbon emission generated by Shanghai in one year is nearly double that of Sydney and triple that of Tokyo, according to recent research on climate change in Asia and major Pacific cities. With industry generating more than 60 percent of local carbon emissions, restructuring of industry holds the key to controlling carbon dioxide discharge and its impact to the climate, said experts from Tongji University's College of Environmental Science and Engineering.

Preliminary results of the research, which was released at the Bayer-Tongji-UNEP Sustainable Development Forum, compared carbon emission and climate policies of Shanghai, Tokyo, Sydney and Bangkok.

According to the research, Shanghai, with the biggest population and the fastest economic growth of the four, discharged more than 5,400 tons of carbon equivalents a year. That was the highest total carbon emission of the four cities, and also the highest per unit of gross domestic product.

Sydney had the highest emission per person and per square kilometer, the forum was told.

89. Chinese Oil Firm to Fund Electric Battery Stations

China National Offshore Oil Corp., one of China's top three state-owned oil companies, is currently in the planning phase of establishing battery-charging stations for electric vehicles, the company confirmed on November 10th. Guan Qingyou, a researcher at China National's Energy Research Institute said the plan involves providing battery-charging facilities for both electric cars and electric bicycles. Vehicle owners will be able to exchange their empty batteries at the stations for fully charged ones, according to the plan. Details on when development of the infrastructure will start, when operations will begin, or where it will be located are not yet available, Guan said. But the stations likely will start in the 13 cities the government has designated to receive subsidies for the purchase of electric vehicles for municipal fleets, including Beijing, Shanghai, Chongqing, and Tianjin. In July, China National invested 5 billion Yuan (\$732 million) in lithium-ion battery maker, Tianjin Lishen Battery Joint-Stock Co. Ltd., with a goal to establish 20 battery production lines at its plant in Tianjin, according to the state-run Global Times newspaper.

SOUTH AMERICA

90. Enviro Groups Praise Chile's New Gas Emission Guidelines

Environmental groups hailed the Chilean government's decision to publish guidelines for limiting the gas emissions of thermoelectric power plants. NGO Chile Sustainable praised the initiative as a "great step forward" in the protection of the environment and human health. "The publication of these guidelines is excellent news," said Chile Sustainable director Sara Larrain.

The guidelines will be released by the Chilean government's environment agency CONAMA. The guidelines represent the first time that stringent limits have been set on the gas levels emitted by fossil fuel energy plants in Chile.

Nitrogen oxide, sulfur dioxide and mercury are among the gases to be limited by CONAMA. They are all produced by thermoelectric energy plants which burn fossil fuels such as coal, oil and natural gas to generate electricity.

Environmental groups emphasized the positive impact these guidelines will have on human health. "The reduction of emissions is good news for society's health, as these gases have harmful impacts on humans' respiratory systems and also heighten our risk of cancer," said Larrain.

91. Brazil to Bolster Biodiesel Requirement in 2010

Starting in January 2010, Brazil's National Energy Policy Council (CNPE) will require all diesel fuel in the country to contain 5 percent biofuel (B5 biodiesel), an increase from the 4 percent biofuel content now required, CNPE President Edison Lobão announced on October 23rd. The CNPE established the initial biofuel requirement for B2 biodiesel—generally a mix of vegetable oil and sugar cane ethanol with 98 percent standard diesel—in a 2005 law designed to increase the market for the renewable fuel. The council raised the standard to 3 percent biofuel in July 2008 and to 4 percent in May 2009. The B5 biodiesel requirement is being implemented three years before the 2013 deadline specified in the 2005 law. Currently gas stations offer only B4 biodiesel, which is mainly used by trucks and buses and helps to reduce greenhouse gas emissions. The B5 requirement is expected to boost the country's biofuel output to 2.4 billion liters (634 million gallons) per year and make Brazil—now the world's fourth-largest biodiesel producer, after Germany, the United States, and France—the world's second-largest producer, according to a Mines and Energy Ministry spokesman. Brazil has 43 biodiesel plants with an installed capacity of 3.6 billion liters (951 million gallons) per year, the spokesman said.

92. Petrobras Tupi Well Reinforces Oil-Reserve Estimates

Petroleo Brasileiro SA, Brazil's state-controlled oil producer, said additional drilling reinforced estimates that its offshore Tupi field may hold 5 billion to 8 billion barrels of recoverable light oil and natural gas.

Petrobras said in a regulatory filing that it finished drilling its fourth well in the area, in 2,115 meters (6,900 feet) of water and about 265 kilometers (164 miles) off the coast of Rio de Janeiro. Tupi, in Brazil's so-called pre-salt region, was the largest discovery in the Americas since Mexico's Cantarell in 1976. Petrobras owns 65 percent of the exploration concession for the field, while BG Group Plc has 25 percent and Galp Energia SGPS SA has 10 percent.

CENTRAL AMERICA

93. Decree Studied to Lower Pollution in Guatemala City

The high levels of contaminants affecting the capital will be reduced next year when the analysis of a government decree should be completed to control land vehicles. From the moment of its approval these vehicles' gas emissions will be reviewed every six months and they will be declared clean if they meet the international standards. Otherwise, the owner of the pollutant vehicle should make up for shortcomings.

In 1995 the first regulation in this matter in Guatemala was adopted but it was repealed two years later by President Alvaro Arzu who is now City Mayor.

According to studies, this city pollution exceeds the levels established by the World Health Organization. About 70 percent of all affectations to the air quality are caused by motor vehicle emissions.

MIDDLE EAST

94. Cairo's Air Quality Considered Among the Worst in the World

From a vantage point on the hills east of Cairo, many of the city's environmental problems are clear at a glance. It is overcrowded and sprawling with high-density housing surrounded by slums. The streets are dirty, chimneys of small factories belch out fumes and traffic sits in

gridlock. With a population of 18m, the rapid growth of the Egyptian capital has outstripped services and damaged natural resources: the Nile is badly polluted and air quality is consistently ranked among the worst in the world.

The most severe air pollution episodes occur each October and November when a dense, dark cloud, consisting of suspended particles linked to respiratory disease, appears. "The black cloud is the result of traffic emissions, small industry and open burning of solid waste but one source dominates," says Ahmed Aboul El-Seoud, undersecretary at the environment ministry. "There is a huge volume of rice straw left after the harvest in the Delta and farmers tend to burn it to get rid of it." The government has introduced fines and criminalized burning crop straw but there are still thousands of violations. While private companies are contracted to collect rice remains so they can be turned into cattle feed or fertilizer they cannot keep pace with demand. Nevertheless, progress has been made; monitoring over several years in the capital indicates the cloud is not hanging about for as long as it did and there are lower concentrations of particles.

Some recent improvement in air quality has been due to the removal of many antiquated black and white taxis. After traffic legislation required drivers to replace cabs that are more than 20 years old, the ministry of finance arranged a low-interest loan scheme with three Egyptian banks so drivers could buy new cars. The government pays them \$900 to scrap old ones and advertising painted on the vehicles helps cover repayments. "People have responded quickly," says Mohamed Abdel Aziz from the ministry. He says 34,000 taxis in Cairo have been targeted and 15,000 new white cabs are now on the roads. "We have had positive feedback from drivers, customers, car manufacturers and other stakeholders. It's better for the economy and the traffic."

Efforts are also being made to have taxis and other vehicles run on cleaner compressed natural gas. At about a third of the price of petrol, it became more popular following a fuel subsidy cut last year. Some power stations and factories are also switching over. Plans to move heavy industries away from cities should also enhance the air quality.

GENERAL

Health

95. Ozone Pollution Could Kill Millions

Ozone pollution could cause hundreds of billions of dollars worth of damage to human health and result in millions of premature deaths around the world by 2050 if left unchecked, according to a new study.³ These damage figures are substantially higher than previous estimates that did not take into account long-term health costs.

"We estimate that health costs due to global ozone pollution by 2050 will be \$580 billion (in year 2000 US\$), and that more than two million premature deaths will result from acute exposure," researcher Noelle Selin of Massachusetts Institute of Technology (MIT) told environmentalresearchweb. "These figures show that man-made atmospheric pollution can have large economic and human health costs. These costs are likely to grow in the future without further pollution control measures."

³ The work was reported in Environmental Research Letters <http://erl.iop.org>

Emissions such as nitrogen oxides (NO_x) and volatile organic compounds (VOCs) from vehicles and power plants are mainly responsible for ozone in the troposphere. These chemicals combine with oxygen to form ozone, especially on hot, sunny days. Ozone pollution can lead to acute respiratory problems, for example asthma and chest infections, particularly in children and the elderly.

Selin and colleagues from MIT and Michigan Technological University, US, used an atmospheric model – the GEOS–Chem global tropospheric chemistry model – to project future ozone levels. They combined this with an economic model, the MIT Emissions Prediction and Policy Analysis–Health Effects (EPPA–HE) model, which estimates the costs of being exposed to the pollutant.

The team used the EPPA–HE model to assess how ozone pollution contributes to human illness and death, quantifying the economic impacts of this damage in 16 regions around the world. They calculated how much ozone pollution will cost in real monetary terms with respect to working and leisure time lost – also known as "economic welfare". They did this by using year 2000 and projected 2050 levels of ozone from the GEOS–Chem model, and simulating how increasing levels of ozone directly influence economic welfare.

Increased temperatures, like those we will experience with climate change, can directly influence the chemistry of the reactions that form ozone, explains Selin. The projected increases in the amount of ozone precursors are very large – especially in developing countries that emit more pollution. More worrying still is that, in the scenario analyzed by the MIT–Michigan team, the economic effects of these emission increases will be far higher than those expected from climate change alone.

Indeed, they stand at nearly \$600 billion, or 0.4% of the world's GDP, by 2050.

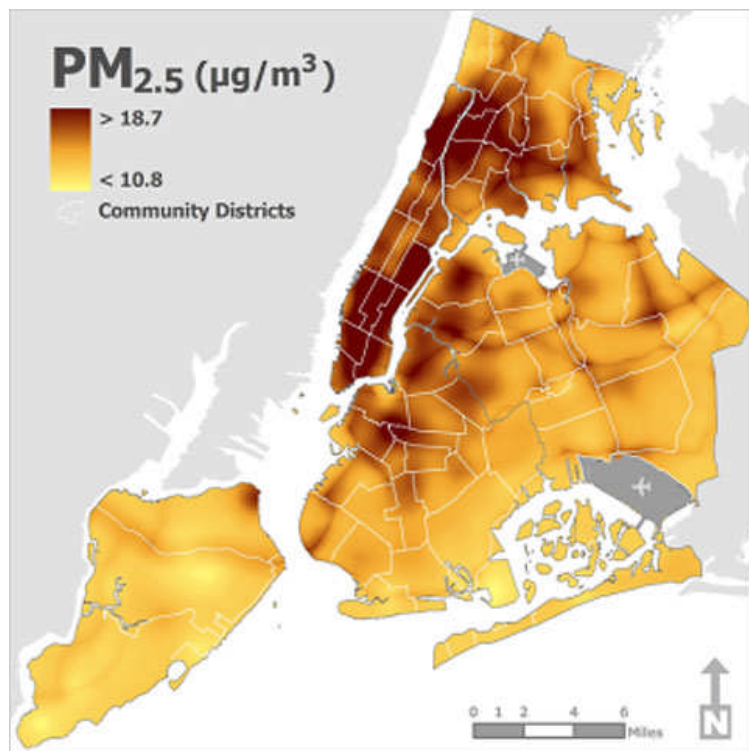
"Since ozone is not directly emitted, but formed in the atmosphere by reactions involving NO_x and VOCs, controls on these precursors reduce the formation of ozone and thus human exposure to this pollutant," says Selin. Although certain regulations – in the US and Europe, for example – already set limits on ozone concentrations, the new study suggests that health costs may be too high, even at the currently controlled levels.

The team is now assessing the economic impacts of polluting particles in the atmosphere, and exploring how future climate policies can help to reduce overall air pollution.

96. Survey Finds Street-Level Air Pollution in Manhattan

New York City health officials released the results of the first survey of street-level air quality ever taken in the city. While the key finding — that Manhattan and other built-up, high-traffic parts of the city have the worst concentrations of particulates — will come as little surprise to those who live and work in Manhattan, it will stand in contrast to most indicators that show Manhattan leading the city's five boroughs in indicators of social and economic well-being.

Over all, the Community Air Survey conducted last winter, showed wide variations in air quality. Not only vehicular traffic, but also concentrations in oil-burning boilers in commercial and residential buildings, accounted for particulate concentrations.



Mayor Michael R. Bloomberg discussed the study, begun as part of his PlaNYC strategy for long-term environmental stability, at the United Nations Climate Change Conference in Copenhagen. "This study clearly demonstrates the impacts that pollution from vehicles and certain oil-burning boilers has on our neighborhoods — and it shows us that the most densely populated areas are also the most polluted," he said.

Researchers collected and analyzed air samples from 150 sites across the five boroughs last winter. The survey found that fine-particle and sulfur dioxide pollution was concentrated in areas where more buildings burn oil for heat, and levels were especially high in areas where buildings use so-

called residual oil (also known as No. 4 and No. 6 oil) in their boilers.

Such pollutants can cause respiratory disease and premature death, and they put young and elderly people at particular risk.

97. Study Finds Dirty Air Makes for Wheezy Kids

Small particles from traffic and heating oil combustion may cause children younger than two to wheeze and cough, according to a new study.⁴ High air pollution levels have previously been linked to asthma symptoms in children living in urban areas with heavy traffic, but this study is one of the first to investigate the types of particles that may be the most harmful, the researchers point out in the American Journal of Respiratory and Critical Care Medicine.

"This study shows that there are multiple components of air pollution that we should be looking at in terms of health effects," Dr. Rachel L. Miller, lead investigator of the study, told reporters. Miller, co-deputy director of the Columbia University Center for Children's Environmental Health in New York City, and her team followed more than 700 children from birth to age two. All of the children lived in northern Manhattan or the south Bronx. Every three months, parents filled out a questionnaire about any respiratory symptoms the infants had experienced. The study took into account factors such as seasonal allergy trends, ethnic group and exposure to tobacco smoke.

⁴ SOURCE: American Journal of Respiratory and Critical Care Medicine, December 1, 2009.

After comparing the results of the questionnaires with weekly pollution data from different sites in the community, the researchers found that high ambient levels of the metals nickel and vanadium were risk factors for wheezing, while exposure to carbon particles, a byproduct of diesel exhaust, was associated with coughing during the cold and flu season.

Total amounts of airborne particles were not associated with wheeze or cough, suggesting that individual ingredients of air pollution may be responsible for asthma symptoms in young children. The EPA currently sets air pollution standards based on total mass of fine particles.

This new study "raises questions about the best way to regulate air pollution to protect young children from its harmful effects," Dr. Frank Gilliland, director of the Southern California Environmental Health Sciences Center, who was not involved in the study, told reporters.

According to Miller, "This study adds to a growing body of research suggesting that exposure to pollutants early in life may have health impacts later on."

98. Air Pollution Increases Infants' Risk of Bronchiolitis

Infants who are exposed to higher levels of air pollution are at increased risk for bronchiolitis, according to a new study.⁵ "There has been very little study of the consequences of early life exposure to air pollution," said Catherine Karr, M.D. PhD, assistant professor of pediatrics at the University of Washington and the paper's lead author. "This study is unique in that we were able to look at multiple sources including wood smoke in a region with relatively low concentrations of ambient air pollution overall."

The researchers analyzed nearly 12,000 diagnoses of infant bronchiolitis between 1999 and 2002 in southwestern British Columbia, with respect to the individual's ambient pollution exposure based on monitored levels of nitric oxide (NO), nitrogen dioxide (NO₂), carbon monoxide (CO), sulfur dioxide (SO₂), and particulate matter from monitoring stations within 10 km of the infants' homes. They also used land-use regression maps to assess concentrations of ambient pollution with respect to traffic and wood smoke. They analyzed pollution exposure by dividing subjects into four categories, or quartiles, of concentration.

After accounting for confounding variables including sex, gestational age, maternal smoking and breastfeeding, they found that a diagnosis of bronchiolitis was significantly linked to increased lifetime exposure to specific pollutants. An interquartile increase in exposure to NO, NO₂, SO₂ and CO increased bronchiolitis risk by 8, 12, 4 and 13 percent respectively. Infants who lived within 50 meters of a highway had an increased risk of six percent; those who lived in a higher wood smoke exposure area had an increase of eight percent in their risk of bronchiolitis.

"In general, we found that traffic-derived air pollutants were associated with infant bronchiolitis as well as wood smoke and industrial emissions," said Dr. Karr. "The magnitude of the effect is modest, but is comparable to most air pollution studies in North America. The importance of these small magnitude effects becomes significant when you consider that they affect a great number of children because these exposures are so ubiquitous."

⁵ The study appears in the November 15 issue of the American Thoracic Society's /American Journal of Respiratory and Critical Care Medicine.

"This study adds to a growing body of research showing a link between neighborhood air pollution hotspots and pediatric respiratory disease.

We were specifically interested in bronchiolitis, the main reason for children to be hospitalized in their first year, as it is an important and costly childhood illness. Reducing exposure to air pollution may be one approach to decrease bronchiolitis occurrence," said Michael Brauer, Sc.D., professor at the School of Environmental Health at the University of British Columbia and principal investigator on the study.

Dr. Karr, who is a pediatrician, also noted that the current research might help guide the conversations that doctors have with patients. "I think we have a role in educating parents about concerns regarding air pollution and promoting precautionary approaches where feasible.

Encouraging avoidance of the use of wood burning appliances or avoiding residing in close proximity to highways would be examples."

Furthermore, she says, policies should address exposure to air pollution in residential settings, school settings, and daycares. "Places where kids spend a lot of time shouldn't be right next to major highways," said Dr. Karr.

The research strengthens the connection between ambient air pollution and respiratory disease among children, although more research needs to be done to elucidate the precise nature of that link. Dr. Karr noted that the National Children's Study, a new project of the NIH, CDC and EPA, which is designed to follow 100,000 mothers and their children from birth to adulthood will expand our understanding further. This prospective study will allow exploration of the role of environmental exposures such as air pollution in the context of other influences on child health such as genes and gene-environment interactions.

99. Dirty Air, Heat, Cold May All Trigger Heart Attacks

Extreme temperatures and heavy air pollution boost heart attack risk, according to a major new study.⁶ And on days when the air is extra dirty and the temperature is unusually hot or cold, the effects are likely to be particularly bad, given that temperature and pollution seem to harm the body in different ways, Dr. Krishnan Bhaskaran of the London School of Hygiene and Tropical Medicine in the UK, the lead author of the research, told Reuters Health.

Several studies have linked changes in temperature to increases in deaths due to any cause, as well as heart disease mortality, Bhaskaran and his team note in their reports. But looking at heart attacks-not just deaths from heart disease-could offer a more accurate picture of the overall health risks of temperature changes and air pollution, they say, and might also offer clues to why they may trigger heart attack in high-risk people.

In two separate reports, the researchers reviewed 19 studies on temperature and heart attack and 26 examining air pollution and heart attack.

In the 12 temperature studies that collected winter data, eight showed short-term increases in heart attack risk with colder temperatures. Seven of the 13 studies that looked at the effects of warmer temperatures found increased heart attack risk in hotter weather. Cold temperatures seemed to have a greater effect on heart attack risk in areas that were warmer, on average,

⁶ SOURCE: Heart, November 2009.

Bhaskaran and colleagues note, suggesting that people living in colder areas may be better adapted to dips in temperature. But hot days boosted heart attack risk whether they happened in Sweden or Brazil.

In a city that normally sees 10 heart attacks a day, Bhaskaran explained, the findings show there might be an extra one to four heart attacks on the hottest or coldest days.

The evidence from the pollution studies was less clear-cut, the researcher said, but overall suggested that the risk of heart attack increases with levels of several different pollutants. Also, he noted, there appeared to be no "safe" level of air pollution at which no effect on heart attack risk was seen.

Governments can also make an effort to alert at-risk people when extreme temperatures or high levels of pollution are expected, the researcher said. He noted that the UK now makes automated phone calls to people with emphysema when they are at risk due to changes in temperature; this, he said, has led to a reduction in hospital admissions for lung disease patients.

In an editorial accompanying the study, Professor David E. Newby of the University of Edinburgh and colleagues note that efforts to control air pollution are likely to help reduce carbon dioxide emissions as well, possibly helping to alleviate the effects of climate change down the road.

100. Vehicle Braking Can Harm Lung Cells

Tiny particles released by car brake pads can harm lung cells, according to new research. Researchers found that heavy braking, as in an emergency stop, caused the most damage, but normal braking and even nearness to a disengaged brake resulted in potentially dangerous cellular stress.

Mechanics Barbara Rothen-Rutishauser and Peter Gehr from the University of Bern and Michael Riediker from the Institute for Work and Health, Lausanne, worked with a team of researchers to study such effects. "Brake wear contributes up to 20 percent of total traffic emissions, but the health effects of brake particles remain largely unstudied. We've found that the metals in brake wear particles can damage junctions between cells by a mechanism involving oxidative stress (OS)," the authors said. OS denotes the steady-state level of oxidative damage in a cell, tissue, or organ, caused by the reactive oxygen.

The teams' analysis revealed that brake wear particles contain considerable amounts of iron, copper and organic carbon. Exposure to these pollutants caused increased signs of oxidative stress and inflammation in the cells, and hard braking caused most exposure, said a Bern release.

Interestingly, some exposure still occurred even when the brakes were not being applied, presumably due to residual brake particles coming off the turning axle and the braking system.

These findings were published in the journal *Particle and Fiber Toxicology*.

Climate

101. 2009 Set To Be Fifth Warmest Year on Record

This year is likely to be the fifth warmest on record and the first decade of this century the hottest since records began, according to the World Meteorological Organization. Speaking on the sidelines of the U.N. climate conference in Copenhagen, WMO head Michel Jarraud pointed to extreme hotspots this year -- Australia had its third warmest year since record dating began in 1850, "with three exceptional heat waves." "I could go on. There was the worst drought in five decades which affected millions of people in China, a poor monsoon season in India causing severe droughts, massive food shortages associated with a big drought in Kenya," he told reporters.

Jarraud also highlighted extreme floods, including one which broke a 90-year record in Burkina Faso. 2009 marked the third lowest summer Arctic sea ice on record, after the two previous years, he added.

Vicky Pope, head of climate change advice at Britain's MetOffice Hadley Center, which supplied some of the WMO data, agreed that 2009 is likely to be the fifth warmest year.

The WMO used British and two U.S. data sources for its temperature analysis. "The three separately show almost identical results," said Jarraud.

The decade 2000-2009 was 0.4 degrees Celsius above the 1961-1990 average, while the 1990s decade was 0.23 degrees higher, said Pope.

102. WMO Says Greenhouse Gas Levels Hit Record High In 2008

In 2008, global concentrations of carbon dioxide, methane and nitrous oxide, which are the main long-lived greenhouse gases in the atmosphere, have reached the highest levels recorded since pre-industrial times. Since 1990, the overall increase in radiative forcing caused by all long-lived greenhouse gases is 26% and the increase was 1.3% from 2007 to 2008. These latest figures, published in late November in the World Meteorological Organization's (WMO) 2008 Greenhouse Gas Bulletin, confirm the continued trend of rising atmospheric burdens of greenhouse gases since 1750.⁷

After water vapor, the four most prevalent long-lived greenhouse gases in the atmosphere that are directly influenced by humans are carbon dioxide, methane, nitrous oxide and halocarbons. WMO, through its Global Atmosphere Watch (GAW) Program, coordinates the observations of these gases in the atmosphere through a network of stations located in more than 50 countries.

The globally averaged mixing ratio of carbon dioxide (CO₂) in 2008 was 385.2 ppm, with an increase of 2.0 ppm from the previous year, continuing the tendency of exponential increase. CO₂ is the most important human emitted greenhouse gas in the atmosphere, contributing 63.5% to the increase in overall radiative forcing since 1750. Its atmospheric abundance was nearly constant at about 280 ppm before industrialization. During the time period 1979-1984 CO₂ contributed 56% of the increase in radiative forcing caused by long-lived greenhouse gases. Since then CO₂ has gained importance and during the five-year period from 2003 to 2008 CO₂ was responsible for 86% of the increase in radiative forcing, which is more than four times superior to all other long-lived greenhouse gases combined. Since 1750, atmospheric

⁷ Full text of the World Meteorological Organization's latest "Greenhouse Gas Bulletin" is available at <http://www.wmo.int/pages/prog/arep/gaw/ghg/GHGbulletin.html>

CO₂ has increased by 38%, primarily because of emissions from combustion of fossil fuels, deforestation and land use change.

The globally averaged mixing ratio of methane (CH₄) in 2008 was 1797 ppb, which means an increase of 7ppb from the previous year. While the concentration of CH₄ was stable for seven years (from 1999 to 2006), both 2007 and 2008 show a significant increase. Methane contributes 18.2% to the increase in overall global radiative forcing since 1750. 60% of CH₄ emissions come from anthropogenic sources such as ruminants, rice agriculture, fossil fuel exploitation, landfills and biomass burning. Before the industrial era, atmospheric methane was about 700 ppb. Increasing emissions from anthropogenic sources are responsible for the 157% increase in the CH₄ concentration since 1750.

The globally averaged mixing ratio of nitrous oxide (N₂O) in 2008 was 321.8 ppb, 0.9 ppb higher than in 2007, and 19% above the pre-industrial level. N₂O contributes 6.2% to the increase in the overall global radiative forcing since 1750. The atmospheric abundance of N₂O prior to industrialization was 270 ppb. N₂O is emitted into the atmosphere from natural and anthropogenic sources, including oceans, soil, biomass burning, fertilizer use and various industrial processes.

The combined radiative forcing by halocarbons is nearly double that of N₂O. Some halocarbons such as chlorofluorocarbons (CFCs), previously used as refrigerants, as propellants in spray cans and as solvents, are decreasing slowly as a result of the phase-out of these compounds through the Montreal Protocol on Substances that Deplete the Ozone Layer. However, concentrations of other gases such as HCFCs and HFCs, which are used to substitute chlorofluorocarbons, are increasing rapidly. These two classes of compounds are very potent greenhouse gases and together with sulfur hexafluoride (SF₆) they contributed 8.9% to the increase in radiative forcing from 2003 to 2008, which is more than the contribution from N₂O during this period.

103. Indonesia Can Reduce Emissions by 41 Percent with Financial Aid

On December 7th, Indonesian officials said that they could increase their pledge of reducing greenhouse gas emissions from 26 percent by 2020 compared to a “business as usual” scenario to up to 41 percent if it receives additional aid from developed countries.

According to Indonesian Environment Minister Rachmat Witoelar, the country could do more to curb deforestation if it had access to more cash; the costs still were being calculated but the final estimate would be at least \$1 billion.

Due to deforestation, the United Nations estimates that Indonesia is the world's third leading emitter of carbon dioxide, behind only China and the United States.

104. Copenhagen Accord on Climate “Noted”, Praised, Condemned

On December 19th, after an all-night session that nearly saw the U.N. Climate Change Conference collapse with no deal at all, delegates agreed to “note” a version of the 11th-hour agreement brokered, in part, by U.S. President Obama. In a statement, U.N. Secretary General Ban ki-Moon sought to put the summit’s final result in a good light. “We have sealed the deal,” Ban said. “This accord cannot be everything that everyone hoped for, but it is an essential beginning.”

Late on December 18th, Obama announced he had struck an accord after a closed-door meeting with Chinese Premier Wen Jiabao, Indian Prime Minister Manmohan Singh, Jacob Zuma, president of South Africa and Brazil. The deal, which was a weaker version of two earlier drafts that circulated in the plenary—made up of representatives of all 193 Parties to the U.N. Framework Convention on Climate Change—was presented to the plenary body for its formal approval. There, it ran into stiff opposition from members of the Group of 77 developing countries. But the group was unable to find traction to gain approval of a draft text released earlier in the week from the Ad-hoc Working Group on the Kyoto Protocol (AWG-KP), and the talks threatened to descend into chaos. Discussions on the KP track were aimed at strengthening and extending the terms of the 12-year-old Kyoto Protocol, which set mandatory requirements for industrialized nations, but required no action on the part of less-developed countries.

While delegates did not reject the Obama-led text outright, they agreed only to “note” a version of the document, officially called the “Copenhagen Accord,” although it was unclear what that would mean in future negotiations. The Copenhagen Accord includes no deadline for when it would be turned into legal language, no greenhouse gas emissions reduction targets for 2020 or 2050, and no date for global emissions to reach their peak. Key points in the Accord are:

- The accord agrees that deep global cuts in emissions are required "according to science... with a view... to hold the increase in global temperatures below 2 degrees Celsius." But there are no medium or long term targets for global emissions reductions required to do this.
- Rising global emissions should peak then fall "as soon as possible", but no date is specified. The same sentence says, at China's insistence, that "social and economic development and poverty eradication are the first and over-riding priorities of developing countries."
- Developed countries commit to register their formal emissions reduction pledges for the year 2020 by the end of January 2010. For the majority of them who have ratified the 1997 Kyoto protocol, that starts the process of creating a second commitment period for emission curbs.
- A convoluted paragraph covers emission reductions by developing countries. The key issue was to get them to reduce their rising emissions below business as usual (BAU) levels by pledging "nationally appropriate mitigation actions." They, too, are asked to register these by the end of January.
- Mitigation actions taken by developing countries will be subject to "domestic measurement, reporting and verification" with a report sent to the UNFCCC every two years. But there will be "provisions for international consultations and analysis under clearly defined guidelines that will ensure national sovereignty is respected."
- Actions financed in part or wholly by developed countries will also be registered and subject to international monitoring. The Chinese had insisted only their emission reductions funded by rich countries should comply with the so-called MRV requirements.

- A short paragraph recognizes the "crucial role" of Reducing Emissions from Deforestation and Forest Degradation (REDD) and says "positive incentives" must be provided to mobilize financial resources from developed countries.
- The accord also favors "various approaches, including opportunities to use markets" to promote cost-effective emission reductions. That keeps the door open for cap-and-trade schemes and taxes, also for international aviation and shipping. There is no explicit reference to bunker fuels in the document.
- There are promises of large new flows of money from rich to poor countries to help them adapt to climate change and reduce their emissions. Developed countries will provide new and additional fast-track funding "approaching" \$30bn over the period 2010-12, with the poorest, most vulnerable countries getting priority.
- Developed countries also "commit to a goal of mobilizing jointly US\$100bn a year by 2020 to address the needs of developing countries". But this funding depends on those developing countries taking "meaningful" actions to cut emissions and "transparency on implementation".
- Multilateral funding for adaptation (but not emissions reductions) will be governed in a way which provides equal representation for developed and developing countries. Developing nations insisted on this; they do not want the money controlled by bodies dominated by rich nations, such as the World Bank.
- An unspecified but "significant" proportion of the climate money should flow through a new "Copenhagen Green Climate Fund", which will also finance emissions reduction measures in the developing world. A new "Technology Mechanism" aims to accelerate the transfer and development of clean technologies.
- There will be a review of the accord's implementation in 2015. This review will include considering whether the goal should be to prevent global average temperatures rising by more than 1.5 degrees Celsius.

Officially, the next set of negotiations, the meeting of the Subsidiary Bodies to the U.N. Framework Convention, will take place May 31–June 11, 2010, at the Maritim Hotel in Bonn, Germany. U.N. officials said it remains possible that an intermediate meeting also will be held in Bonn in March or April and that the subsidiary talks could be shifted to another location, possibly back to Copenhagen's Bella Center.

The 16th Conference of the Parties meeting will be held Nov. 8-19 in Mexico.

The deal, brokered between Obama and the leaders of China, India, Brazil, and South Africa, was characterized by many world leaders and at least some environmental organizations as significant progress that pushes the world closer to ratification of a legally binding deal in late 2010 in Mexico. But it is a far cry from what many envisioned two years ago when more than 190 nations met in Bali, Indonesia, at what was the 13th Conference of the Parties (COP-13) to the United Nations Framework Convention on Climate Change. In Bali, delegates agreed to conclude a legally binding accord in Copenhagen.

Obama's announcement, while hailed by many as significant progress, was followed by rancorous debate among the U.N. negotiators from the 193 nations meeting here. Opposition was led by members of the Group of 77 developing countries, including island nations vulnerable to rising sea levels who complained that the deal did little to ensure immediate cuts in greenhouse gas emissions. The prospect of having the deal rejected by those delegates, renewed complaints that the U.N. talks are too unwieldy to address a global problem that might be better suited for a smaller group that can bring together only the large economies that produce the bulk of the world's greenhouse gas emissions.

Yvo de Boer, who heads the UNFCCC overseeing the international climate negotiations told reporters that the deal brokered by the United States, China, India, Brazil and South Africa got wider support during negotiations on December 18th. That support came from meetings comprising another two-dozen or so world leaders, including French President Nicolas Sarkozy and British Prime Minister Gordon Brown. Those two-dozen leaders were also involved in the "nitty gritty of drafting the final text" that was ultimately agreed to in 10 hours of intensive talks, de Boer said. Those talks, de Boer said, were crucial in ensuring that the Copenhagen deal, announced by Obama before his departure, received enough support.

The European Union, which has set itself ambitious emissions cuts targets and encouraged others to follow suit, only reluctantly accepted the weak deal that finally emerged. "The decision has been very difficult for me. We have done one step, we have hoped for several more," said German Chancellor Angela Merkel.

A final breakthrough came after U.S. President Barack Obama brokered a final deal with Chinese Premier Wen Jiabao and leaders of India, South Africa and Brazil that they stand behind their commitments to curb growth in greenhouse gases. Obama said the "extremely difficult and complex" talks laid the foundation for international action in the years to come. "For the first time in history, all of the world's major economies have come together to accept their responsibility to take action on the threat of climate change," Obama said at the White House after returning from Copenhagen.

The outcome underscored shortcomings in the chaotic U.N. process and may pass the initiative in forming world climate policy to the United States and China, the world's top two emitters of greenhouse gases. In a stormy overnight session, the talks came to the brink of collapse after Sudan, Nicaragua, Cuba, Venezuela and Bolivia lined up to denounce the U.S. and China-led plan, after heads of state and government had flown home.

The conference finally merely "took note" of the new accord.

The National Resources Defense Council (NRDC), one of America's leading conservation groups, issued a press release in which NRDC president Frances Beinecke says: "We have taken a vital first step towards curbing climate change. For the first time in history, the US is joining with other major emitters to take real action against global warming. Real cuts in carbon pollution. Real American jobs at home. Real measures to make clear which countries make good on their vows. And real help for the world's most vulnerable people exposed to droughts, famine and storms made worse by climate change."

This reads quite differently from Friends of the Earth Europe's reaction from the same day: "Copenhagen has been an abject failure. Rich countries have condemned millions of the world's poorest people to hunger, suffering and loss of life as climate change accelerates. The blame for this disastrous outcome is squarely on the developed nations. We are disgusted by the

failure of rich countries to commit to the emissions reductions they know are needed, especially the US, which is the world's largest historical emitter of greenhouse gases."

UN climate Chief Yvo de Boer, who delivered the final briefing of the summit, didn't welcome the accord with outstretched arms but didn't dismiss it as a disaster either. His main criticism is that it is not an agreement that is legally binding. It is "a letter of intent". But this he hopes to fix at COP16 in Mexico City a year from now. Mr. de Boer said the Accord was "politically incredibly significant" because, for the first time, it had involved dozens of world leaders in the real detail of intensive negotiation over climate change issues.

European business associations dismissed the Accord, saying it fails to provide industry with the investment certainty needed to move to a low carbon economy. The EU carbon price fell sharply in early trading on Monday as a result. Mark Lewis, head of global carbon market research at Deutsche Bank, said he expected the carbon price to remain depressed until the middle or end of February. It also failed to provide clarity on the future of Kyoto's project-based clean development mechanism (CDM). Lewis said the outcome "heightens uncertainty over the continuation of the CDM and JI mechanisms beyond 2012." Carbon market analysts IDEAcarbon said a number of improvements to the CDM were approved. These included a new appeal and review system for projects rejected by the CDM executive board. But they admitted "few of the changes will be immediately relevant for the market."

The Federation of German Industries (BDI) said there was now an "acute danger that emissions and jobs will be shifted to countries with lower climate protection burdens." It implored the EU not to increase its climate target to 30%, saying it would "increase the one-sided burden on Europe's industry". European Commission official Jos Delbeke said it was "business as usual" for the EU in the wake of Copenhagen. "The implementation of the EU's climate and energy package will proceed as foreseen, and the emissions trading scheme will remain in place till 2020 and beyond."

105. Heavy-Duty Manufacturers Call for Global Energy Efficiency Policy Cooperation

The world's leading heavy-duty vehicle and engine manufacturing companies have urged the close cooperation between policy makers in Europe, the United States and Japan to develop practical and effective fuel-efficiency measurement metrics, methodologies and regulations which would then be used all around the globe.

"A coordinated global approach for our industry is the most effective way to contribute to achieving global fuel efficiency improvements from the road freight sector"

Over a dozen chief executives of the global commercial vehicle industry – including Caterpillar, Cummins, Daimler, Hino, Isuzu, Iveco, Mack, MAN, Mitsubishi Fuso, Navistar, Nissan Diesel, Scania, Volvo and Volkswagen, met on December 3rd in Brussels to discuss various opportunities and needs their industry is facing. The discussions focused primarily on the issues of climate change and global energy security, but also covered global air quality- related emissions standards, improved fuel quality and specifications for renewable fuels.

The manufacturers agreed to actively encourage global policy cooperation and to provide their expertise to ensure that regulatory developments enhance the industry's technological progress within realistic time and economic constraints. "A coordinated global approach for our industry is the most effective way to contribute to achieving global fuel efficiency improvements from the

road freight sector”, said Leif Östling, Chief Executive Officer of Scania and Chairman of the ACEA Commercial Vehicle Board, who hosted the meeting in Brussels. “We serve a global market place, and want to avoid conflicting regulations from different regions. That is simply too costly, and impedes technological progress.”

“The world’s leading commercial engine and vehicle manufacturers are well aware of the importance of fuel efficiency to their customers and support global efforts to reduce greenhouse gas emissions. Global cooperation in developing specific requirements, as well as metrics and methodologies to evaluate fuel efficiency, provides needed elements to further improve the environmental performance of our vehicles and increases the efficiency of goods transport. That will serve both our customers and the environment,” added Östling.

It is the seventh year that the chief executives of the global commercial vehicle and engine manufacturers met to address important industry issues on a global level. The meetings bring together representatives of the European Automobile Manufacturers’ Association (ACEA), Japan Automobile Manufacturers Association (JAMA), Engine Manufacturers Association (EMA), and Truck Manufacturers Association (TMA).

Continuing the progress made at previous meetings, the executives discussed how the global harmonization of technical standards affecting heavy-duty engines and vehicles could further improve environmental performance and road freight movement efficiency.

Among the key topics addressed at the meeting were:

- Ongoing activities in Japan, US and EU on fuel efficiency of heavy-duty vehicles
- Progress in developing a globally accepted method for the certification of heavy-duty hybrid electric vehicles
- The use of computer simulations to evaluate fuel efficiency of the diverse commercial vehicle configurations and usage
- The positive outcome of the UNECE efforts in establishing a Global Technical Regulation for gaseous emissions testing of heavy-duty engines (WHDC gtr)

As a result of the meeting, the chief executives agreed to initiate through OICA a proposal to UNECE to develop a certification procedure of heavy-duty hybrid electric vehicles based upon the HILS procedure used in Japan and to ask UNECE to address this issue with urgency.

Furthermore, and in relation to exhaust emission requirements, the manufacturers agreed to recommend the introduction of legislative requirements regarding market fuels, in order to ensure that the appropriate, high-quality fossil and renewable fuels are globally available for today’s vehicle technologies. The commercial vehicle industry will work with the oil industry to underline the importance of this issue and ensure a constructive dialogue.

Considering the positive outcome of the UNECE process on establishing a harmonized engine certification procedure for emissions related to air quality, the chief executives encourages UNECE to take advantage of this momentum and initiate activities with the objective to develop metrics and methods to measure fuel efficiency of heavy-duty vehicles and engines and for evaluating fuel efficiency improvements of components related to air and rolling resistance.

Mr. Daniel Ustian, Chairman, President, and CEO of Navistar, extended an invitation to the eighth Global Commercial Vehicle Industry Meeting in the USA in 2010.

106. "Super Greenhouse Gas" Deal Fails

At talks in Port Ghalib, Egypt, climate advocates were hoping to seal a global agreement for the phase down of super greenhouse gases and give next month's Copenhagen climate talks a can-do running start. But the annual meeting of the 198 nations of the Montreal Protocol began on a note of contention that five days of discussions could not overcome.

The 22-year-old Montreal Protocol has delivered an unbroken string of successes in the battle against ozone depletion, accomplished with comity and cooperation, but now observers say it has caught the climate virus. Rhetoric trumped getting down to business, as an agreement to rid the world of HFCs, enormously potent global warming gases, was postponed for at least another year.

The central issue on the table was what to do about "super greenhouse gases," a popular term for hydrofluorocarbons, or HFCs. In previous years, the Montreal Protocol had anointed HFCs as replacement gases for ozone destroying chemicals commonly used as refrigerants. Though HFCs do not harm the ozone, it turns out they are lethal global warming agents, thousands of times more potent than CO₂ at warming the planet. With rising prosperity in developing nations, HFC use is expected to skyrocket. Left unchecked, their build-up in the atmosphere could essentially negate current efforts to reduce carbon dioxide to safe levels by 2050.

The U.S. had introduced an amendment to the Montreal Protocol to include HFCs in the list of gases the treaty could regulate. The proposal would have allowed the treaty's well-established working mechanisms to be deployed against the HFC emergency within the larger climate and greenhouse gas emergency. While the U.S. amendment was supported by Canada and Mexico and buttressed by an even stronger proposal from Micronesia and Mauritius and other island nations, two conflicting positions emerged on Day 1 of the meeting.

The European Union occupied a middle ground. Though not opposed to a phase-out of HFCs under the Montreal Protocol, the EU was not in favor of action that could disturb upcoming climate negotiations under the Kyoto regime prior to meetings in Copenhagen.

China and India took a more combative stance, staunchly and unabashedly opposing the U.S. proposal. They raised difficult legal issues that questioned whether the Montreal treaty could regulate gases that were not ozone-depleting substances and called for more research. Observers say their motivation was largely stoked by financial self-interest and simmering resentment. China and India are still awaiting payment of about \$1 billion from the Montreal Protocol's multi-lateral fund for engaging in the phase-out of HCFCs, a class of gases regulated by the treaty. Developed nations led by the U.S., which promised the funding more than 18 months ago, have balked at the levels being demanded. It is the first time in the history of the Montreal Protocol that nations have failed to quickly agree on funding guidelines for a phase-down.

But the Montreal Protocol meeting did yield two binding decisions that are important steps forward in climate protection. The parties agreed to stop paying for the substitution of ozone destroying substances if high-global warming potential gases such as HFCs are used; and they escalated actions to destroy existing banks of gases - as much as 6 gigatons of CO₂-equivalent HFCs over the next five years - to prevent their release into the atmosphere.

Still, negotiators and insiders are concerned with the lack of progress on HFCs. Immediate action under the Montreal Protocol would prevent their manufacture to begin with, and it would offer a cheaper pathway to alternatives. HFCs handled in a climate regime are dealt with after they are produced and inserted into millions of cars and refrigerators dispersed around the globe, with much larger payments required to bring them under control.

107. Climate Treaties Should Recognize Effects of Air Pollution Sweden Says

On November 2nd, the Swedish Environmental Protection Agency issued a statement urging the international community to recognize the close relationship between air pollution and climate change. The statement detailed the conclusions of the October 19-21 Air & Climate Conference in Gothenburg, Sweden, which recommended that international climate treaties be amended to recognize the effects of air pollutants on temperature. According to evidence presented at the conference, certain pollutants can have a greater effect on climate than previously believed.

A Swedish climate negotiator told reporters that the conferees' recommendations would be forwarded to all relevant bodies and presented at the U.N.-sponsored climate change summit in Copenhagen in December.

While substances such as sulfate and organic carbon can have a cooling effect, the conference's final statement pointed out, emissions of other materials such as black carbon and ozone can raise temperatures. Policymakers should be aware of the potential short-term climate effects caused by various air pollutants or actions cutting pollutants, it stated. Policies embracing both issues could improve both air quality and climate at a reduced cost, it said.

Anna Engleryd, Negotiator for international air pollution issues at the Swedish Environmental Protection Agency's Climate Change Department, confirmed on November 4th that Sweden supports changes to the 1999 Gothenburg Protocol on European air pollution, the United Nations' 1979 Convention on Long-Range Transboundary Air Pollution, and Arctic Council declarations to reflect the conference's conclusions. The conclusions will be raised at an executive meeting of the Convention on Long-Range Transboundary Air Pollution in December as well as a side event to be held in cooperation with the U.S. Environmental Protection Agency at December's 15th Conference of the Parties to the United Nations Convention on Climate Change in Copenhagen, she said.

According to the final declaration, the Gothenburg Protocol could be revised to take into account the climate effects of air pollutants and short-lived climate forcers such as black carbon, carbon monoxide, and methane. Furthermore, climate models need to take into account the effects of ozone and nitrogen on ecosystems, it stated.

"By taking the right measures, we can ensure significant improvements for both air quality and the climate, at a considerably lower overall cost," said Ms. Engleryd. "During the Swedish presidency, we therefore want to promote the issue of how international air pollution work can help to reduce climate change."

108. IEA Says 'Revolution' Needed For 50% Cut in Transport GHG Emissions by 2050

On October 27th, the International Energy Agency released a report calling for a "technology revolution" to help reduce greenhouse gas emissions from transportation by up to 50 percent

from 2005 levels by 2050. The Paris-based agency said such a reduction by the transportation sector will be essential to international efforts to address climate change.

The report, *Transport, Energy and CO₂: Moving Toward Sustainability*, said the transportation sector is already responsible for nearly one-quarter of global energy-related carbon dioxide emissions. It added that car ownership worldwide is set to triple to more than 2 billion by 2050, while trucking activity will double and air travel could increase fourfold.

“Without strong global action, these trends will lead to a doubling of transport energy use, with an even higher growth rate in CO₂ emissions as the planet shifts toward high-CO₂ synthetic fuels,” it said.

The agency said countries could reduce transportation emissions far below current levels by shifting travel to the most efficient modes and improving vehicle fuel efficiency up to 50 percent using incremental technologies, “at lower costs than many assume.” “The first priority should be to adopt technologies and practices that are cost-effective today. ... We target a 50 percent improvement by 2030 for new light-duty vehicles,” the report said. IEA said countries also should improve urban development and invest in a new generation of urban and intercity transit systems.

However, these measures will only be enough to slow growth in vehicle travel and stabilize carbon dioxide emission levels, the report said.

To reach the 50 percent reduction target requires a “revolution,” meaning “unprecedented” investment in research and design combined with government policy changes, it said. The revolution must combine use of electricity, biofuels, and hydrogen, all of which face big hurdles, including infrastructure requirements, costs, and—especially for biofuels—the need to assure the use of truly sustainable feedstocks, the agency said.

Governments will need to invest in infrastructure such as electrical recharging systems, and countries will need to collaborate. Because countries that are not members of the Organization for Economic Cooperation and Development are expected to generate the vast majority of growth in travel, energy use, and emissions, “they will need to be part of the solution,” the report said.

An independent body within the OECD framework, IEA has 28 member nations out of the OECD's 30, many of which are among the worlds most developed and thus its biggest consumers of energy.

109. Reducing Climate Emissions Will Also Improve Health

Cutting emissions to mitigate climate change will also make people healthier, according to just published research. A special series of articles, published in medical journal, the *Lancet*, outlines how such policies could have a direct impact on global health. The series has been released ahead of the UN climate summit in Copenhagen.

World Health Organization (WHO) director, Margaret Chan, said health protection should be a criterion by which mitigation measures were judged. Dr Chan was just one of the key figures in global health research who wrote a comment article that was published alongside the *Lancet* reports.

Another was Professor Sir Andrew Haines, director of the London School of Hygiene and Tropical Medicine, who is chair of the international task force of scientists that wrote the series.

Some of the key findings in the reports include:

- Food: High-producing countries should reduce livestock production by 30%. If this translated into reduced meat consumption, the amount of saturated fat consumed would drop sharply, which could reduce heart disease
- Transport: Cutting emissions through walking and cycling and reducing use of motor vehicles would bring health benefits including reduced cardiovascular disease, depression and dementia
- Household: In low-income countries, solid fuel stoves create indoor air pollution. National programs to introduce low-emission stoves could avert millions of premature deaths and reduce greenhouse gas emissions
- Pollution: Short-lived pollutants including ozone and black carbon contribute to climate change and damage health. Reducing emissions of these would offer immediate benefits
- Energy: Decreasing the proportion of carbon-based electricity generation would give health benefits worldwide, particularly in middle-income countries such as India and China

Dr Chan commented: "As this series shows, cutting greenhouse gas emissions can represent a mutually reinforcing opportunity to reduce climate change and improve public health." Dr Chan pointed out that the poorest countries were the most vulnerable to the health impacts of climate change.

One group of researchers described the results of an 18-year study of the long-term health effects of pollution in the US. The team, led by Professor Kirk Smith from the School of Public Health at the University of California, Berkeley, US, pointed out that "short-lived" greenhouse pollutants, such as particles of black carbon and ozone, can directly damage the heart and lungs. They said that "separate climate change agreements" might be needed for these pollutants.

The public health "co-benefits" of black carbon reduction are higher in India than in any other country, with the potential to save 2 million lives in just the next few years, said the authors. "Policymakers need to know that if they exert their efforts in certain directions, they can obtain public health benefits as well as climate benefits," said Dr. Smith. Smith said the monetary costs of reducing emissions would be more than offset by the reduction in pollution-related deaths.

The researchers found that many greenhouse gases -- in particular, ozone and black carbon, or soot -- can damage the heart and lungs. In India, most black carbon is produced by wood-burning stoves and by the incomplete combustion of diesel fuel, which occurs in electricity generation and transport. The study estimates that indoor air pollution causes 400,000 premature deaths a year.

Researchers have long known that black carbon can damage health, but in India, recognizing black carbon as a greenhouse gas → which would require emissions reduction → has been a controversial proposition.

"The numbers are staggering," said Veerabhadran Ramanathan, a leading climate change scientist. Ramanathan says black carbon causes up to 18 per cent of global warming, and that

reducing emissions is “feasible” and will have immediate benefits. Black carbon, which accumulates on glaciers, has also been suggested as one of the key drivers of recent Himalayan glacier melt.

Much of the world's black carbon is produced in India and China. Western nations have put pressure on India to discuss the issue at the climate change conference in Copenhagen, to take place next month. Environment Minister Jairam Ramesh has categorically refused, saying the scientific link is still too new.

R.K. Pachauri, head of the Inter-governmental Panel on Climate Change (IPCC), said last week that black carbon could not be linked to climate change -- yet. The IPCC will conclude its own black carbon study by 2013.

The Indian government recently approved its own three-year study of black carbon's contribution to climate change. The study will involve researchers from The Energy and Resources Institute (TERI), as well as leaders like Ramanathan, said Ramesh.

110. China Announces a Carbon Intensity Goal

China has announced that by 2020 it would reduce its carbon intensity by 40-45 percent of its overall gross domestic product from a 2005 baseline, a move that fits into efforts by the United States and other countries to convince China to set emissions goals ahead of December climate negotiations in Copenhagen.

The November 26th announcement – which was reported by Xinhua, a state-run news agency – came just a day after the Obama administration announced a long-awaited near-term emissions-reduction target “in the range of” 17 percent below 2005 emission levels by 2020. The announcements appear to fit into a strategy by the White House to negotiate bilateral deals with major emitters like China and India going into the Copenhagen meeting.

According to Xinhua, the Chinese State Council approved the carbon intensity reduction target on November 25th. The council said the new target would be a “binding goal” that would become a part of the country's medium- and long-term development plans.

111. Aircrafts' Efficiency 'Barely Improved Since 2000'

The energy efficiency improvements of new commercial aircrafts have been close to zero since the beginning of the decade despite the oil price hike, a study published by the International Council on Clean Transportation (ICCT) has shown.

Researchers estimated the fuel consumption of thousands of aircraft over the past 50 years. The ICCT found efficiency gains dropped during the 1990s. Since 2000 efficiency has improved only 0.29% annually on a ton per kilometer basis (passengers and freight). Efficiency remained flat on a seat/km basis.

The green transport group found a correlation between the decline in efficiency improvements and a "considerable" slowdown in the introduction of new aircraft designs. It argues that new designs are the main driver of energy savings, not increases in oil prices.

It calls for carbon emission standards for new models and existing ones being produced. The International Civil Aviation Organization (ICAO) has proposed a standard for new models only.

But this could encourage manufacturers to delay the introduction of more efficient aircrafts, the ICCT says.

ICCT study (http://www.theicct.org/documents/ICCT_Aircraft_Efficiency_final.pdf)