

Energy Policy Update

Energy and Environmental News

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Alternative Energy & Efficiency

Analysts: More Than 50 Hybrid Models by 2010

[*Calstart web site, Dec. 10*] Detroit - **According to two analysts following development in advanced powertrains, automakers are preparing to introduce a significant number of light-duty gasoline-electric vehicles in the next five years, reports *Automotive News*.** By 2010 more than 50 hybrid models will be available in North America, and volume will be close to one million units annually, according to the Hybrid Vehicle Sales Forecast. The study was done last year by two former J.D. Power and Associates analysts, Thad Malesh and Ed McLaughlin, of the Automotive Technology Research Group in Thousand Oaks, Calif. Malesh said the forecast is based on an analysis of platforms outfitted with hybrid powertrains as well as derivatives that could be converted easily. He cited the Ford Escape Hybrid and its offshoots, the Mercury Mariner and Mazda Tribute. Currently, Toyota Motor Corp., Honda Motor Co., Ford Motor Co. and General Motors [GM] offer a total of seven hybrid nameplates. Toyota, currently vying with GM for largest automaker, says it will make the powertrain available in all models, and is marketing its hybrid technology and engineering expertise to other companies, including Nissan Motor Co. and potentially to Porsche. Ford Motor Company has licensed Toyota technology as well. Malesh says GM is the wild card when it comes to hybrids, and is expected to make public an update of its hybrid plans at the Detroit auto show in January. GM has announced plans to add hybrid powertrains to the Saturn Vue and Chevrolet Malibu and Equinox. But Malesh sees Toyota retaining its engineering and sales leadership in hybrids. "Toyota wants to make it so doggone painful for anybody else to do the research and development that they will fight off competitors," he says....

Arizona Schools to Get Solar Energy Systems

[*Reuters, Dec. 6*] Tucson - **Six local schools will have solar energy systems installed over the next year.** The systems are expected to lower utility bills and teach students about renewable energy. Tucson Unified School District's Hohokam Middle School started using its new system [on Dec. 1st]. The 28 silver-

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colored solar panels sit on a canopy covering the exterior walkway to the science wing. "Many students don't know what solar panels look like, which is a travesty given we live in an area where the sun shines year-round," said Hohokam science teacher Ariana Wilder. "We can discuss directly how they'll benefit us in the school." The \$30,000 systems installed and maintained by Tucson Electric Power [TEP] are expected to save the school about \$60 a month in electricity costs. The system was funded by TEP's *Green Watts* program, which allows ratepayers to donate money toward solar facility construction in Tucson. A similar solar setup has been installed at Civano School in Vail. Other ones will be installed at Safford Middle School and Pueblo High School. In downtown, Project More and the new Davidson Elementary School will also have solar panels.

Ontario Fuel to Contain Five Percent Ethanol by 2007

[*Environmental News Network web site, Nov. 29*] Winnipeg, Manitoba – **Gasoline in Canada's most populous province will contain an average of five percent of pollution-reducing ethanol by 2007, the Ontario government said [on Nov. 26].** Gasoline wholesalers can blend with ethanol, an additive made from corn and other plants, or trade renewable fuel credits to reach the target, the provincial government said in a news release. The ethanol mandate will reduce greenhouse gas emissions by about 800,000 tons, the equivalent of taking 200,000 cars off the road, Ontario said. Canada currently produces about 274 million liters (72 million U.S. gallons) of the additive and imports another 100 million liters (26 million U.S. gallons) a year, mainly from the United States. Ontario's mandate creates a potential market for 750 million liters (198 million U.S. gallons) of ethanol, according to industry figures. The announcement was hailed by ethanol producers in the province, including a farmer-owned co-operative that hopes to build a C\$86 million (\$73 million) plant using 12 million bushels of corn per year....

Scottsdale Shows off its Solar Innovations

[*Arizona Republic web site, Dec. 6*] Scottsdale - **Residents of the newest downtown condominiums will have, along with landscaped roofs, lower utility bills.** Plastic piping will run through concrete walls to bring solar-powered water to heat or cool the condos. David Hovey, a Chicago architect who is designing the 750-unit Optima Camelview Village, northeast of Camelback and Scottsdale roads, has tried the system at his new north Scottsdale home. "The house is still in the experimental stage," he told 20 visitors who took a tour [on Dec. 4] of environmentally innovative buildings. The tour, sponsored by the Scottsdale Museum of Contemporary Art, wound its way to Sterling Ridge Road, 25 miles north of the Optima project, where Hovey's tiered, glass-and-concrete house clings to a hillside. Hovey pointed up to the cantilevered glass with its small squares of solar panels. It is the largest installation of residential solar panels in the United States, he said, and they serve the dual purpose of offering shade as well. Through glass walls, which have UV [Ultraviolet] protection, the architect pointed down to a negative-edge pool. As the water falls off the edge, its chill or its heat, depending on the season, is captured and circulated through the house pipes....

San Francisco Proposal Gives 'Green Vehicles' a Free Ride

[*Calstart web site, Dec. 9*] San Francisco - **A new proposal before the San Francisco Board of Supervisors would give drivers of eco-friendly cars free parking at all city parking meters, according to the KCBS San Francisco City Hall Bureau.** KCBS says Supervisors Jake McGoldrick and Michela Alioto-Pier want to give free parking to all hybrid, electric and natural gas cars. "During the oil embargo in the 70s, millions of Americans came to understand how much their lifestyles depended on oil," said Alioto-Pier. "At that time, everyone agreed that something had to be done to reduce that dependence." But she said a quarter century later, the nation still has not taken enough steps to promote energy conservation and continues to be dependant on foreign oil. The plan is being introduced as the San Francisco Department of Transportation considers raising parking fees. If supervisors pass it, the one year pilot program would begin in about six months.



Legislation & Regulation

Bush to Make 'Aggressive Push' to Cut Pollution

[*Environmental News Network web site, Dec. 13*] Washington, D.C. - **President Bush will make air pollution a top priority in Congress early next year, starting with "an aggressive push" to build**

support for his pollution-cutting plan, senior administration officials said [on Dec. 11]. At the same time, the administration will hold off until no later than March on a rule to cut pollution from power plants that would accomplish some of the same ends as Bush's anti-pollution plan, the officials told *The Associated Press* [AP]. The White House on [Dec. 11] told the Environmental Protection Agency [EPA] of its game plan, which is meant to allow time for Sen. James Inhofe, R-Okla., sponsor of Bush's "Clear Skies" initiative, to hold hearings on it in January.... "The centerpiece will be 'Clear Skies' legislation and/or the 'Clean Air Interstate Rule [CAIR]," Leavitt added in an interview. "Both of those will provide a 70 percent reduction of nitrogen oxides and of sulfur dioxide. It would be a \$50 billion investment in clean air; it would take more tons of pollution out of the air." The Clean Air Interstate Rule would call for reducing pollution according to a timetable and strategy that closely mirror the proposals the administration offered nearly three years ago in a Clear Skies initiative that stalled in Congress. Environmentalists, however, say the Bush legislative proposal carried by Inhofe goes further than the rule, weakening parts of the Clean Air Act. "The Bush Administration is now staking its money on a bill in Congress that weakens and delays public health protections already provided under the current Clean Air Act, while forcing the EPA to delay public health protections under current law," said John Walke, director of clean air programs for the Natural Resources Defense Council. Administration officials now hope Inhofe, chairman of the Senate Environment and Public Works Committee, can get the bill onto the Senate floor soon. The interstate rule on power plant pollution was to have been made final by the end of this year, but doing that could detract from the need for the legislation. "The president wants to synchronize our strategy, and Senator Inhofe has asked that we allow his hearings to be concluded before we finalize CAIR (the interstate rule)" Leavitt told the AP.... The EPA will still send the interstate rule to the White House Office of Management and Budget on [Dec. 20] for a 90-day review, and it will be made final by March unless Congress passes Bush's legislative plan by then, said Leavitt and James Connaughton, chairman of the White House Council on Environmental Quality.... "The legislation also allows us to have a national cap on pollution from power plants, whereas the regulation only allows us to deal with the Eastern states where transported pollution is the issue." That rule covers hundreds of coal-burning power plants that EPA believes will "significantly contribute" to ozone and soot pollution in the East. It is designed to reduce long-distance, interstate pollution, which will help states meet the more stringent federal health-based air quality standards that are being put into place.... States will have three years to come up with plans for meeting the new standards. But to do that, they will rely heavily on significant reductions in pollution from power plants and other industrial sources, said Bill Becker, executive director of associations representing state and local air pollution control officials. "It is disappointing that the Clean Air Interstate Rule is being delayed by as much as three months, especially given the controversy surrounding Clear Skies legislation and how it weakens the existing Clean Air Act," Becker said. Democrats and some moderate Republicans blocked the bill because of disagreement over whether to regulate industrial emissions of carbon dioxide, a major gas produced from burning fossil fuels that is widely blamed for warming the atmosphere like a greenhouse. After promising to regulate it during his 2000 election campaign, Bush since March 2001 has repeatedly said he opposes regulating carbon dioxide emissions....

CARB Makes Diesel Regs Mandatory

[*Calstart web site, Dec. 13*] Sacramento - **The California Air Resources Board (ARB) has elected to make software upgrades to reduce emission for heavy-duty diesel vehicles mandatory.** According to an ARB release, after a seven-month trial voluntary program was unsuccessful in upgrading enough trucks, the agency enacted the regulation. It will require owners of nearly 60,000 heavy-duty trucks, school buses and diesel-powered motor homes built between 1993 and 1999 to have their computer software upgraded to reduce excess smog-forming emissions. The upgrade requirement stems from a \$1.04 billion settlement between USEPA [U.S. Environmental Protection Agency] , ARB and the six largest truck manufacturers – Detroit Diesel Corp. (DDC), Renault/Mack, Volvo, International, Caterpillar and Cummins – over emission control software that increased emissions when the vehicle operated under conditions not included in government emission compliance tests. As part of that settlement, manufacturers agreed to upgrade (reflash) their 1993 through 1998 vehicles during engine overhauls, projected to be at about 350,000 miles. However, most of these engines have long exceeded that mileage, some are now over one million miles old, without being overhauled. As a result, the ARB required the upgrades whether engines are being overhauled or not. In March, the ARB gave manufacturers until November 2004 to voluntarily reflash 35 percent of all California registered vehicles that required the upgrade, from the 13 percent already upgraded. Only one manufacturer, DDC, was able to meet that goal. The other manufacturers fell short of the goal and overall achieved a voluntary rate of only 18 percent of all vehicles needing the upgrades, despite a concerted effort by the California Trucking Assn. to conduct them throughout the summer. As a result of its effort, DDC was allowed to continue its voluntary compliance program. The

mandatory reflash program will require the oldest trucks (1993-94 models) to be upgraded by April 30, 2005. Those built in model years 1995-96 are required to have their upgrades completed by August 31, 2005 and those built in 1997 and 1998 must be reflashed by December 31, 2005. Owners of 1997 and 1998 medium heavy-duty vehicles, mainly delivery trucks and motor homes, have until December 31, 2006 to have the reflash completed.

Environmentalists See Trouble Ahead

[*Reuters, Dec. 1*] Washington, D.C. - **Environmentalists see some of their worst fears playing out as President Bush moves to cement a second-term agenda that includes getting more timber, oil and gas from public lands and relying on the market rather than regulation to curb pollution.** Bush's top energy priority – opening an Alaska wildlife refuge to oil drilling – is shaping up as an early test of GOP [Grand Ole Party] gains in Congress. “This is going to be a definitional battle, and we're ready,” said Deb Callahan, president of the League of Conservation Voters. Though the election didn't emphasize such issues, administration officials believe the results validated their belief that many environmental decisions are better made by the marketplace, landowners and state and local governments. James Connaughton, chairman of the White House Council on Environmental Quality, said the administration will continue a “partnership with the oil and gas sector” but also will work with conservation organizations – as long as they are “willing to engage constructively on defining priorities and practices in domestic production.” Bush's environmental priority is to rewrite the Clean Air Act to set annual nationwide limits on three major air pollutants from power plants and to allow marketplace trading of pollution rights rather than regulation to meet those goals. He does not plan to change his mind on his rejection of the Kyoto international climate treaty that would impose mandatory caps on carbon dioxide emissions. “Kyoto's unworkable,” Connaughton said. Because of an environmental group's lawsuit, the EPA [Environmental Protection Agency] is preparing to issue first-ever regulations to cut mercury pollution from coal-burning power plants and new standards for cutting soot in the air and reducing power plant pollution that drifts between states. Mike Leavitt, administrator of the Environmental Protection Agency, foresees more EPA water monitoring and preparations against chemical and biological attacks. “I believe the mission that the president has given me in a second term, and the agenda and the philosophy that was validated by the election, was more progress, faster, being achieved in a way that will maintain economic competitiveness as a nation,” he said.... The administration put off until after the election a final decision on a plan to allow road building and logging on 58 million acres of remote forests where both are now banned. Interior Secretary Gale Norton's agency is rewriting 162 plans for managing about one of every 10 acres in the United States. The decisions will affect whether wildlife protections or new oil and gas drilling projects are favored....

Experts Suggest New Guidelines on Mileage, Greenhouse Gases

[*Environmental News Network web site, Dec. 8*] Washington, D.C. - **Hoping to break the national impasse over energy, a panel of experts [on Dec. 8] will call for limits on greenhouse gas emissions, tougher car mileage rules and a financial safety net for companies building a gas pipeline from Alaska.** With the energy bill all but dead and lawmakers bracing for another bitter, highly partisan battle in the next session of Congress, a group calling itself the National Commission on Energy Policy will unveil its prescription for improving the nation's energy security while reducing the threat of climate change. “What we believe we have crafted here is a fully integrated set of supply and demand recommendations,” said William Reilly, a former head of the U.S. Environmental Protection Agency [EPA] and co-chair of the panel of environmentalists, energy industry executives, academics and former government staffers. In a report titled “Ending the Energy Stalemate: A Bipartisan Strategy to Meet America's Energy Challenges,” the group called for a mandatory program to reduce releases of carbon dioxide and other greenhouse gases believed to contribute to global warming. Perhaps its most controversial recommendation – the group already has heard disapproval from the White House – would limit the amount of greenhouse gases a particular site would be permitted to emit. Any operation that exceeded its limits would be able to buy emission credits from another operation. But if a facility could not find enough credits to buy, it would have to ratchet back those emissions or pay the federal government \$7 for every metric ton over its limit. The Bush Administration favors voluntary programs to reduce greenhouse gas emissions.... The panel also called for stiffer fuel efficiency requirements for cars and trucks, to help reduce the nation's petroleum dependence. The group also proposed helping energy companies build a \$20 billion pipeline to bring natural gas from Alaska to the lower 48 states, by shielding the investors if gas prices were to plunge during construction. The panel did not touch one of the most contentious issues on Capitol Hill: proposals to drill in Alaska's Arctic National Wildlife Refuge....



Arizona & Western Power

Automakers Sue California Over New Pollution Limits

[Environmental News Network web site, Dec. 8] **Nine automakers sued [Dec. 7] to block California's new global warming vehicle pollution limits, claiming the state overstepped its bounds and could force consumers to pay thousands more for new cars.** Adopted in September, the standards aim to cut carbon dioxide and other tailpipe emissions by 30 percent by 2016. New cars would need to get at least 44 miles to a gallon and light trucks 27 miles a gallon. The regulations were required under a 2002 greenhouse gas bill by Assemblywoman Fran Pavley, D-Woodland Hills, and signed by then-governor Gray Davis. The lawsuit filed by the Alliance of Automobile Manufacturers in U.S. District Court in Fresno on [Dec. 7] argues that by regulating carbon dioxide – which is formed by burning gasoline – the state is essentially setting fuel economy standards. Only the federal government can set fuel economy standards. “Federal law is designed to ensure a consistent fuel economy across the country,” Alliance CEO [Chief Operating Officer] and President Fred Webber said. “There’s a better way to improve fuel economy than this regulation, such as providing consumer tax incentives for the purchase of our new advanced-technology vehicles.” The Alliance also argued that Californians would pay an average of \$3,000 more for a new car and there would be fewer vehicle models to choose from. While environmentalists accused carmakers of “crying wolf” over excessive price increases, air regulators said the tailpipe emission limits would greatly benefit Californians by also cutting smog and soot. “We had hoped that we would be able to work with the auto companies and find a way to avoid litigation. These lawsuits often end up hurting public health by slowing regulation that could have a beneficial effect on air pollution,” said Jerry Martin, spokesman for the Air Resources Board....

Company Plans to Build Phoenix-El Paso Gas Line

[Arizona Republic web site, Nov. 24] **A privately held Phoenix company plans to build a 430-mile pipeline between Phoenix and El Paso that, when completed, could more than double the Valley's supply of gasoline, diesel and jet fuel.** If the plan works out, it would go a long way toward meeting the Valley's current and future gas needs, which have been strained by periodic shortages and rising prices the past couple of years. About 175,000 barrels of fuel are delivered daily to the Phoenix area through two pipelines, from Texas and California; the proposed pipeline would bring an additional 250,000 barrels, the company said. Prices at the pump also could fall because of the larger supply and the relatively cheaper cost of gasoline refined in Texas. Arizona's prices are similar to California's, among the highest in the nation. Michael Owens, president of Pacific Texas Pipeline & Transportation Co., said the 20-inch-diameter pipeline would run parallel with a natural-gas pipeline the company had proposed in 2002 from Midland, Texas, to Blythe, Calif. That project is still working its way through the surveying and permitting process. “It just made sense that while permitting for one line to go ahead and permit for both,” he said. The plan for the second pipeline, which would cost about \$425 million, began taking form shortly after the 2003 gas shortage, caused by a pipeline rupture in Tucson. The rupture of that pipeline, owned and operated by Kinder Morgan Energy Partners, cut fuel deliveries to Phoenix by as much as 50 percent and sent Valley drivers scurrying to the gas pumps as prices rose to more than \$3 a gallon in some cases....

Southwest Gas Bills Get Pricier

[Arizona Republic web site, Dec. 15] **Residential and commercial gas bills are going up Jan. 1.** Regulators on [Dec. 14] approved an approximately 1.8 percent temporary rate increase for Southwest Gas Corp. that will tack \$1.38 onto an average winter residential bill of \$78.44. The increase is separate from a recently requested rate increase that would allow Southwest to permanently raise the average residential bill by \$5.77 per month. The surcharge is to compensate for an unexpected increase in wholesale natural-gas prices. Southwest owns no wells and must purchase gas on the open market to sell to its approximately 870,000 customers in Arizona. The Arizona Corporation Commission allows it to adjust its rates to reflect price changes. The two-cents-per-therm increase was less than half of what Southwest wanted, but spokesman Garth Andrews said the company would accept the decision. A therm is a standard measurement of natural gas and is equal to 100,000 British thermal units. Southwest expects to have a \$17 million deficit in its purchased gas account by the end of December. Arizona Corporation Commission members, who unanimously approved the surcharge, were concerned about overburdening

consumers. Last winter, UniSource Energy Corp.'s natural-gas customers in northern Arizona saw their bills rise as much as 60 percent when a surcharge was added to a 21 percent increase in basic rates.

Tucson Electric Power Buys Power Plant Share

[*Azbiz web site, Nov. 23*] Tucson Electric Power [TEP] spent \$40 million to acquire a third interest in the Luna Energy 570 megawatt gas-fired power plant in southern New Mexico from Duke Energy. TEP will be joining partners Phelps Dodge Energy Services and PNM [Public Service Company of New Mexico], an Albuquerque-based utility in completing the half-finished plant, which is expected to cost another \$330 million to bring online. The plant will add another 190 megawatts to Tucson Electric's 2,003-megawatt generating capacity, an 8.5 percent increase.



Energy-Related Environment

2004 Among the Hottest Years on Record

[*Environmental News Network web site, Dec. 16*] Buenos Aires - **The year 2004, punctuated by four powerful hurricanes in the Caribbean and deadly typhoons lashing Asia, was the fourth-hottest on record, extending a trend since 1990 that has registered the 10 warmest years, a U.N. [United Nations] weather agency said [on Dec. 15].**... The release of the report by the World Meteorological Organization came as environmental ministers from some 80 countries gathered in Buenos Aires for a United Nations conference on climate change, looking at ways to cut down on greenhouse gases that some say contribute heavily to Earth's warming. Scientists say a sustained increase in temperature change is likely to continue disrupting the global climate, increasing the intensity of storms, potentially drying up farmlands and raising ocean levels, among other things. Michel Jarraud, the World Meteorological Organization secretary-general, said the warming and increased storm activity could not be attributed to any particular cause, but was part of a global warming trend that was likely to continue....

'After Kyoto' Takes Center Stage at Climate Talks

[*Reuters, Dec. 11*] Buenos Aires, Argentina - **The Kyoto agreement to reduce greenhouse gas emissions doesn't take effect for two months, but climate change negotiators are already fixated on what happens when it expires in 2012.** Getting the United States into the fold has been the focus of much talk in the first days of the 12-day U.N. [United Nations] climate change conference in Buenos Aires. President Bush pulled out of Kyoto in 2001 and negotiators are trying to involve the United States in planning now for a new agreement after Kyoto. While British Prime Minister Tony Blair is reportedly urging Bush to rejoin international efforts on climate change, diplomats in Buenos Aires are also extending an olive branch to their U.S. colleagues. "The United States is responsible for 36 percent of emissions of industrialized countries or 25 percent of the global total. So if you want to make a push you have to go for 100 percent," said Raul Estrada, head of the host Argentina delegation. Estrada, who was chairman of the 1997 conference in Kyoto that created the protocol, has proposed two seminars for next year and already has the support of the European Union [EU], the heavyweight in global climate talks. "By having this broad discussion, I think we are offering them (the United States) an opportunity to participate and we would be very keen to see them do that," Yvo de Boer, head of the EU delegation. Since the conference opened [on Dec. 6], the United States has made its position clear: it has chosen a "different path" from Kyoto and will continue to focus on a domestic emissions program to 2012 that does not threaten economic growth. On [Dec. 10], it voiced its clear opposition to the seminar proposals. "We felt they were very tightly linked to the start of a post-2012 negotiating process and we believe it is premature to start such activity," U.S. delegation head Harlan Watson said in an interview....

Blair Said to Seek New Climate Pact with Bush

[*Reuters, Dec. 9*] London - **British Prime Minister Tony Blair is trying to involve the United States in a new international treaty on global warming,** *The Times* newspaper said on [Dec. 9]. It said Blair had held lengthy discussions with President Bush over a fresh initiative that would bypass Washington's opposition to the Kyoto Protocol, which seeks to curb climate change. The United States has not signed up to the Kyoto pact, which will go into effect in February after Russia ratified it last month. Blair has made the

environment and Africa his two top issues for next year when Britain assumes the presidency of the G8 group of rich nations....

EU Wants More Mandatory Emissions Cuts, U.S. Opposed

[*Reuters, Dec. 17*] Buenos Aires, Argentina - **The European Union [EU], the heavyweight in the fight against global warming, will push for mandatory cuts in emissions after the Kyoto protocol expires in 2012 despite fervent opposition from the United States.** Kyoto goes into effect two months from [Dec. 23], but negotiators at this week's U.N. climate change talks are firmly focused on a new regime for when it ends in 2012 and what can be done to get the United States, the Kyoto drop-out, involved. EU Environment Commissioner Stavros Dimas told *Reuters* in an interview that the EU must stick to what it believes in – legally binding emissions cuts – despite calls from some corners [on Dec. 13] for a less rigid stance. “I think what we should do is try to get everybody on board with mandatory reductions,” said Dimas, a Greek lawyer who has held this post for less than a month. U.S. delegation head Paula Dobriansky ruled out mandatory caps and reiterated it is too soon to talk about post-2012. “Our policy is that we do not support mandatory targets or timetables,” Dobriansky, Undersecretary for Global Affairs at the State Department, said in an interview. Under Kyoto, industrialized countries together must reduce man-made emissions by five percent by 2012 versus 1990 levels and some have deeper cuts than others. Most consider it a first, small step to stop global warming. The United States, the biggest polluter in the world with 25 percent of heat-trapping greenhouse gas emissions, chafes at the idea of mandatory caps, which it says thwart growth. That was the main reason President George W. Bush pulled out of Kyoto in 2001. While few of the 6,000 people at the convention expected the United States to change its mind on Kyoto, many were surprised at its hardline stance during the last 10 days. “See a few more summers in Texas where the roads are melting, or the drought wipes out the farmers and the ranchers ... then you might start to see some rethinking,” said U.S. Rep. Dennis Kucinich, an Ohio democrat and supporter of Kyoto.

Honda Gets the ‘Greenest’ Award

[*Reuters, Dec. 7*] Detroit - **Japanese automakers produce the cleanest-burning vehicles and they led in the 2003 model year by Honda Motor Co., while General Motors Corp. [GM] placed dead last, a U.S. environmental group said on [Dec. 7].** “When the rubber meets the road, Honda stands out as the greenest automaker,” said Don MacKenzie, a vehicles engineer at the Union of Concerned Scientists. He spoke on a conference call as the group – an independent, nonprofit alliance of more than 100,000 scientists and other activists – presented its biennial report on the pollution performance of vehicles produced by the six largest automakers in the U.S. market. The report focuses on smog-forming pollution and carbon dioxide or heat-trapping gas emissions, the main pollutant linked to global warming. Passenger vehicles are blamed for roughly one-fifth of the smog-forming pollution in the United States. The emissions performance of Honda was ranked the best for the third consecutive time and the Union of Concerned Scientists said its researchers found it builds vehicles that produce less than half the pollution of the industry average, when it comes to smog-forming emissions. In global warming pollution Honda slipped from previous studies, however, producing just 18 percent less than the industry average. Nissan Motor Co. Ltd. placed second in the rankings for the 2003 model year and Toyota Motor Corp. was third, followed by Ford Motor Co., DaimlerChrysler and General Motors. “In sharp contrast to Honda, today we’re naming General Motors public polluter No. 1 when it comes to emissions generated by automakers,” said MacKenzie. “GM has gone from being the best of the (Detroit) Big Three to the worst automaker overall in our rankings,” he said. The report said GM, the world's largest automaker, was the only one to produce vehicles that emit more smog and heat-trapping gases in the 2003 model year than they did in the 2001 model year. GM spokeswoman Joanne Krell disputed the report's methodology, however, saying it penalized automakers who build more large trucks as part of their vehicle lineup. “We think the report more accurately reflects an automaker's fleet vehicle mix, and U.S. consumers' purchase behavior, than it does environmental performance,” Krell said. Nonetheless, MacKenzie said Ford's large trucks produced only half the smog-forming pollution emitted by large trucks from GM. [The Dec. 7] report came as the Washington-based Alliance of Automobile Manufacturers, which represents Detroit and many foreign automakers, said it had filed a federal lawsuit challenging California's tough new vehicle emission rules. The move was widely expected and David Friedman, research director of the Union of Concerned Scientists' clean vehicle program, said such actions only add to the image problems already facing the world's most polluting car companies. “Automakers have to stop trying to block environmental progress ... They should put engineers to work, not lawyers and lawsuits,” Friedman said. “The world is moving

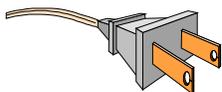
forward on global warming, and investors are getting more and more wary of automakers who just simply won't step up," he said.

Particle Pollution Falls Ten Percent in Four Years

[USA Today web site, Dec. 14] Washington, D.C. - **The average level of a deadly form of air pollution dropped in the U.S.A. from 1999 to 2003 as new pollution controls made strides in battling the nation's air quality problem, the Environmental Protection Agency [EPA] said [on Dec. 14].** The deadliest form of particulate pollution, the soot emitted by tailpipes and smokestacks, fell 10 percent during the four-year period, the EPA reported.... Despite the improvement, many communities still suffer from particulate pollution far worse than allowed by federal law. The new report says that 62 million people live in counties where particulate levels were higher in 2003 than limits set by the EPA to protect public health. But EPA chief Mike Leavitt said the nation has been making steady strides in improving overall air quality. His agency estimates that fine particulate levels are roughly 30 percent lower now than 25 years ago. "Today's report shows that we are making significant progress in the reduction of particle pollution," Leavitt said.... Particulate dropped significantly in Southern California, the Southeast and the Northwest. Several metro areas that saw the most improvement are those that had the worst particulate pollution to begin with, including Bakersfield, Calif.; Chattanooga, Tenn.; and Atlanta. The EPA says one reason for the improvement is a federal program aimed at cleaning up air pollution from power plants. The program was designed to cut emissions that create acid rain, but it had the extra benefit of cutting the amount of particulate in the air. Particulate pollution consists of tiny droplets and bits of soot emitted by power plants, diesel vehicles and factories. It's often visible as a pale haze that clouds both city skylines and national park vistas. Environmentalist John Stanton warned that there's still a long way to go in fighting the pollution problem, noting that he believes the EPA's message seems to have been politically motivated. "Clearly, this was good news they could tell," said Stanton of the environmental group Clear the Air. "And it was sandwiched between two pieces of bad news on the same topic," referring to a recent decision by EPA to delay a federal rule relating to power plant cleanup and an EPA announcement due [on Dec. 17th] that will say which counties fail to comply with particulate limits. The EPA acknowledges there are still problem areas. The Northeast has seen a rise in particulate pollution. And some of the worst problems in 2003 were in counties including Pittsburgh, Chicago and Fresno, Calif. They and four more California counties all suffered more than 30 days in 2003 with particulate levels higher than the federal limit. An additional 21 counties had 11 to 30 days of unhealthy particulate pollution in 2003. Particulate pollution depends partly on weather. Very hot years tend to have more particulate; cool, rainy years, less. The EPA adjusted some of its statistics to account for weather and found that the trend remains downward.

Struggle to Stem Alaskan Oil Spill

[CBS News web site, Dec. 13] Anchorage, AK - **The Coast Guard lowered a salvage team to a freighter that broke in two pieces when it ran aground off Alaska's coast, seen as a key step toward cleaning up a destructive, oily mess stretching for miles.** A helicopter with a three-person salvage team took off from nearby Dutch Harbor on [Dec. 12] to undertake the short flight to the 738-foot Selendang Ayu, wrecked [on Dec. 8] in rough seas. Strong winds and waves had kept authorities from boarding either half of the ship. For days the Coast Guard had wanted to get a team on the vessel to determine how much of the 483,000 gallons of bunker oil and 21,000 gallons of diesel fuel had leaked into the sea. But bad weather hampered efforts before [Dec. 12]. The salvage team assessed only the stern section of the freighter because it was too difficult to get onto the bow, said Petty Officer Amy Thomas. The team found that the ship's No. 2 hold, which had contained about 40,000 gallons of heavy bunker oil, was breached. When the ship split in half, it was over the No. 2 hold. The Coast Guard has said previously the No. 2 hold contained 140,000 gallons of fuel. "It is completely open to the sea," said Petty Officer Amy Thomas. The No. 3 hold, with an undetermined amount of oil in it, is leaking. The No. 4 hold appeared to be intact Some of the oil that leaked from the vessel may have already balled up and sunk to the ocean bottom.



Energy/General

Bush Picks Bodman for Energy Secretary

[Reuters, Dec. 10] Washington, D.C. - **President Bush on [Dec. 10] named Treasury deputy secretary Samuel Bodman as secretary of the Energy Department, filling one of the last openings in his second-term Cabinet.** If confirmed by the Senate, Bodman would replace Energy Secretary Spencer Abraham....

One Year Ago: China's Oil Demand Reshapes World Market

[Calstart web site, Dec. 14] **With China's industrial machine running on overtime and its ballooning vehicle market, the country is rapidly ramping up its demand for petroleum, reports the *Wall Street Journal*.** That growth, and China's search for reliable suppliers, is reshaping energy markets globally, and has political implications for the future. The burgeoning Asian giant surpassed Japan this year as the second largest petroleum consumer, behind the U.S. Its expanding thirst for oil is expected to rival current U.S. levels by 2030, while its domestic production is flat. Right now, the primary impact is on price; and if developed nations push aggressively to develop renewable energy – weaning themselves off fossil fuels – the economic and environmental impact of China and Asia's burgeoning growth may be handled successfully. If not, then suppliers who have catered to the U.S. may increasingly turn to China for their economic, security and political needs. As Peter Davies, chief economist at BP PLC told reporters, “The whole center of gravity of the world energy market is changing.”

OPEC to Cut Output by One Million Barrels a Day

[Reuters, Dec. 10] Cairo, Egypt - **OPEC [Organization of Petroleum Exporting Countries] agreed [on Dec. 10] to reduce output by one million barrels a day in hopes of staving off further price declines without triggering a new buying frenzy, delegates said.** Saudi Oil Minister Ali Naimi said the reduction will be implemented starting Jan. 1. He told reporters the Organization of Petroleum Exporting Countries would meet again at [the end of December] to review what effect the measure has had on prices that have fallen sharply recently while remaining high above previous established levels. The reduction will scale back OPEC's overall production to the group's current official ceiling of 27 million barrels a day – a figure the group had been exceeding by more than one million barrels a day.... Al Naimi suggested OPEC was braced for some further drops in world crude prices, despite recent sharp declines. Benchmark U.S. crude futures have fallen by almost a quarter since the record prices of more than \$55 a barrel in late October. The decline has been sharpest in the last week or so, spurred by increases in U.S. petroleum inventories, mild winter weather and little sign of a slowdown in OPEC output. “We have done everything to moderate the price,” the Saudi minister said, alluding to overproduction in recent months. “It is moderating and it will probably moderate more.” Despite some pressure by other OPEC nations to raise the bar on OPEC's price band – now at between \$22 to \$28 – Al Naimi said the group decided to leave that marker unchanged for now. But he suggested the 11-nation oil producer group could decide on further cutbacks even before crude prices fall below those levels. “We will defend (market) stability by going up or going down,” he said. Earlier, the London-based Al-Hayat Arab newspaper reported that if OPEC decides to cut excess production, Saudi Arabia – responsible for most of the extra capacity – would scale back its January output by 500,000 barrels a day. Libyan Oil Minister Fathi bin Shatwan said some OPEC countries would be able to start cutting back overproduction right away, while for others the process would take more time. The OPEC meeting comes amid members' concern about a possible oil glut in the second quarter of 2005 and prices that are now a quarter below their peaks above \$55 a barrel. Consuming nations, meanwhile, have called on OPEC to keep output high to underpin economic recovery. While some quota busting will likely continue, any formal decision to lower output is expected to send at least a signal to markets that OPEC wants to defend current prices.... OPEC's two other options – doing nothing, and risking continued losses, or reducing the quota target and precipitating a new oil crisis – were clearly not appealing to members. Their decision to try and bring output down to the set level of 27 million barrels appeared to be a bid to reduce the risks both ways. With the 10 OPEC members who subscribe to quotas pumping at least one million barrels a day above their target, the decision to respect quotas means they could cut back without revising production-ceiling targets. In recent months OPEC's members had been pumping more than 30 million barrels a day with Iraq included. Iraq has been exempted from quotas to enable it to rebuild its economy. But an international energy monitoring organization said [on Dec. 10] that because of violence and other problems in Iraq, its production fell sharply last month, dragging down total OPEC output. Iraq produced 1.35 million barrels a day in November, down 400,000 barrels from the previous month, the International Energy Agency said. Factoring in that downturn, OPEC pumped 29.4 million barrels daily last month, it said.

Projects Develop Energy Exploration Tools and Technologies

[U.S. Dept. of Energy web site, Dec. 9] Washington, D.C. - **Secretary of Energy Spencer Abraham has announced awards for five new cost-shared research projects to help meet the Nation's growing demand for natural gas.** The new projects, supported by \$4.2 million in Energy Department funding, will develop advanced diagnostic tools and technologies to reduce the risk in exploration and development of

deeper gas and tight fractured reservoirs. "As America's demand for natural gas grows, we will increasingly turn to resources that stretch the limits of today's technology," Secretary Abraham said. "By investing in technology development, the Department of Energy helps to ensure a reliable, affordable, and environmentally sound supply of domestic natural gas for the future. Our energy security will be directly enhanced by these technologies." Natural gas demand in the United States is forecast to grow by 50 percent by 2025. A recent study by the National Petroleum Council concludes that adding new North American natural gas supplies will require finding, developing, and producing more technologically challenging resources than ever before. The natural gas resources that will be found and developed over the next 25 years will be located in increasingly remote and technologically challenging geographic locations. The newly selected projects will help meet future needs by developing tools and technologies to remotely identify gas reservoirs and reservoir properties in deep exploration settings, as well as to help maximize production in existing fields. One project target is reservoirs at depths greater than 15,000 feet in the shallow-water, deep-gas plays of the Gulf of Mexico. The Department of the Interior's Minerals Management Service recently increased its estimate of recoverable gas located in the Gulf of Mexico's shallow water by 175 percent. The new estimate is 55 trillion cubic feet (Tcf) of gas at 15,000 feet and deeper, below the outer continental shelf in water depths up to 650 feet. The projects also target deep portions of interior U.S. basins – including the Greater Green River, Wind River, Anadarko, Appalachian, and Uinta basins – where gas resources are even more abundant. The U.S. Geological Survey estimates that deep gas reservoirs will supply 135 Tcf of technically recoverable gas. A recent Energy Department assessment of marginal, sub-economic resources in the Greater Green River and Wind River basins of the Rocky Mountains estimated that more than 1,000 Tcf of in-place gas exists below 15,000 feet, mainly in tight gas sands.

Rich Need to Do More on Environment - World Bank

[Reuters, Dec. 13] Washington, D.C. - **The World Bank on [Dec. 13] chastised rich countries for not giving enough to fund global environmental protection and warned that overall progress in meeting global environmental targets was "alarmingly slow."** In an annual report entitled "Environment Matters," the World Bank said aid for the environment averaged about \$2 billion a year over the past decade, far less than well-off societies agreed during a major environment summit in Brazil in 1992. The report estimated that protecting the environment in developing countries amounted to about \$2.50 per person a year in rich countries, less than the current price for a gallon of gasoline in most industrialized nations. "If the war on environmental degradation is to be won, we need a major turnaround," James Wolfensohn, president of the World Bank urged in the report. He said rich countries should set an example by adopting environmentally friendly production and consumption practices. "Rich countries' larger contribution to environmental damage means they must shoulder greater responsibility for fixing the problem," he said. And in poorer countries, governments should improve policies on water, energy, transport and trade to help reduce consumption of scarce natural resources, Wolfensohn added. "Beyond this, environmental concerns must be integrated more fully into development policymaking," he said. World Bank's top environment official, Ian Johnson, said in the report that it was vital that global efforts on the environment be targeted and coordinated to enhance growth and reduce poverty....



Industries & Technologies

Fill 'Er Up – at Home and with Hydrogen

[MSNBC web site, Dec. 6] **A few dozen prototype fuel cell cars are being tested worldwide, most in California, but the first available for sale aren't expected for years.** General Motors [GM] maintains a bullish prediction of sales in 2010, while other automakers put sales out around a decade. Last year, President Bush announced a \$1.2 billion fuel cell research initiative with a goal of car sales by 2020. A second goal is to use domestically produced hydrogen to "significantly reduce" the nation's oil use by 2040. So while the hydrogen station won't be sold any time soon, Honda does have a transition strategy: selling a home station for compressed natural gas, or CNG, vehicles. Other automakers have abandoned CNG cars, but Honda plans to up production next year and sell a \$2,000 home station at dealerships. "People are going to come back to CNG," especially since hydrogen is a long-term solution, says Steve Ellis, the manager of alternative fuel vehicles for American Honda. He envisions "tens of thousands over time" in a transition that would make folks comfortable with the idea of refueling at home. What's still not clear is whether a hydrogen station, or a hydrogen economy for that matter, will ever make economic sense. "The primary challenge is around cost and reliability," Sperry says of the station. While he won't get

specific, he says the station costs are still “well in excess” of where they need to be to compete with electricity directly from natural gas or coal power plants. Eggert acknowledges economic obstacles but says projects like this one provide “substantial learning associated with codes, standards and safety procedures for future hydrogen infrastructures.” A related obstacle is that using natural gas to get hydrogen doesn't eliminate a growing issue with fossil fuels: emissions of carbon dioxide, a greenhouse gas that many scientists tie to global warming. “Natural gas-based hydrogen does not eliminate carbon dioxide emissions [CO2],” Eggert acknowledges. But, he adds, “the increased efficiency of the fuel cell does allow for a reduction in CO2 compared to conventional gasoline” internal combustion engines. The Home Energy Station doesn't store the CO2 emitted in the process, but Sperry acknowledges that finding a way to capture and store the CO2 would be a “step in the right direction” toward a future free from fossil fuel emissions. “Ultimately,” he adds, “if we truly want to get off of hydrocarbons we have to use renewables (like solar and wind) as the energy source” to produce hydrogen. Industry executives acknowledge the uncertainties, but point to a history of cost reductions in hydrogen and fuel cell research, and to interest across the automotive and government spectrums. The state of New York is the latest to buy into the concept, leasing two Honda fuel cell vehicles that will be able to fill up at the new Home Energy Station, which is at Plug Power's headquarters in Latham, N.Y. “Fuel cells have the potential to revolutionize the transportation and energy industries,” Gov. George Pataki said in announcing the leases in conjunction with the new Home Energy Station.... Honda says the Home Energy Station goes hand in hand with its decision to make its own fuel cell stacks rather than buy them as most automakers are doing. Its latest stack, unveiled at the New York ceremony, is able to start in sub-freezing temperatures and extends auto mileage up to 190 miles per tank. “Projects like this are important to prove the technology works in real world applications,” Eggert says. “If Honda can demonstrate freeze tolerance of its new fuel cell stack, this represents a significant technological advance.”

Japan Railway Wants Fuel Cell Trains on the Track in Six Years

[Environmental News Network web site, Dec. 6] **Studies are under way to get a fuel cell-powered, nonpolluting, low-noise train into service by about 2010, the Railway Technical Research Institute [RTRI] said [Dec. 6].** The RTRI fuel cell-driven train development program has been making steady progress and in February successfully test-drove a prototype bogie – a wheel system powered by fuel cells, institute officials said. The institute plans to build an experimental fuel cell-powered train to run on RTRI's test tracks in Kunitachi, western Tokyo, in the near future. The institute has engaged in research and development on fuel cell trains since 2001, when it successfully ran a mini-train powered by fuel cells with an output of one kilowatt-hour with one person aboard. The RTRI was established in 1987 following the privatization of Japanese National Railways as a joint R & D [Research & Development] institute of the seven Japan Railway companies. Among its major projects is the development of a Maglev (magnetic levitation) system. The prototype bogie tested in February used a fuel cell system with an output of 30 kilowatt-hours, and showed a top speed of 30 kph [kilometers per hour], the institute said. The fuel cell system being tested in the RTRI project is basically the same as that used in automobiles, designed to generate electric power through a reaction between hydrogen in a cylinder and oxygen in the air. The only by-product of the reaction is water, while the electric-powered motor produces far less noise than a diesel engine, according to the institute. The fuel cell train now envisioned by RTRI will consist of two cars, one equipped with a set of four motors, a transformer and a battery, and the other equipped with fuel cells and a hydrogen cylinder. The vehicle will be able to run at a maximum speed of 120 kph and travel a maximum of 300-to-400 kilometers before the hydrogen cylinder needs replacing. A major hurdle to be cleared before the planned fuel cell-powered train can be put into service is to boost the fuel cells' efficiency, according to Kenichi Uruga, chief of the institute's Vehicle Control Technology Department. To run a couple of carriages, fuel cells capable of turning out 600 kilowatt-hours of electricity are needed, he said. Fuel cells capable of producing that amount of electricity currently available are too large to be set up in the envisaged vehicle, Uruga said. “We need to reduce the size of fuel cells by about two-thirds to overcome the hurdle,” he said....

