

Weekly Energy Status Report

1. Northwest Power Pool Status (WA, OR, ID, MT, WY, UT, No. NV, BC, AB)

- Power Pool peak load (2/7): 50,782 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$46-57 per MWh, Ave. = \$50.3
- Approximate change from previous week \$ -2.4 per MWh
- "Normal" price range, before 5/00 \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$65.11 per barrel (year ago: \$47.13)
- Seattle gasoline price (2/7) \$2.31 per gallon (year ago \$1.89)
- Natural gas, Sumas Hub: \$7.15 per million British Thermal Units (year ago \$5.48)
- Approximate change from last week. Oil: -2.81 \$ per barrel; Nat. gas: -0.01\$ per MMBtu

3. California Electricity Situation

- CA ISO Alert Status
 - September 13, 2005, extensive blackout in Los Angeles caused by utility crew.
 - August 25, 2005, rotating blackouts in So. Calif. due to transmission line failure.
 - July 21 and 22, 2005 stage 2 alerts were declared in So. Calif.

4. Energy News Headlines from around the Nation

- Enron defense: "There was no evil". (Seattle Times, Feb. 1)
- Addiction treatment: Bush's latest solution (WSJ, Feb.2)
- Alternative fuel is attracting venture capital. (WSJ, Feb. 2)
- Wind power capacity added in 2005 sets record. (Oil & Gas Journal, Feb. 2)
- Minnesota aims to get biodiesel back in gear (Milwaukee Sentinel, Feb. 1)
- How Brazil broke its oil habit (WSJ, Feb. 6)
- Links to other energy news and information

5. River and Snow Pack Information (Updated: Jan 31, 2006)

- Observed December stream flow at The Dalles: 84.5% of average,
- Observed December precipitation above The Dalles: 115% of average,
- Forecast Jan.-July 2006 runoff at The Dalles: 111 MAF, 103% of average,
- Federal hydropower generation in Dec: 7,821 aMW, 1995-2002 average: 9,255 aMW.
- January snow pack: 88% of average.

6. Energy Conservation Achievement (Updated: Feb. 11, 2004)

- State Agencies: From Oct thru Dec 2003 electrical usage was 9% less and natural gas usage was 21.3% less compared to the same period in 2000.

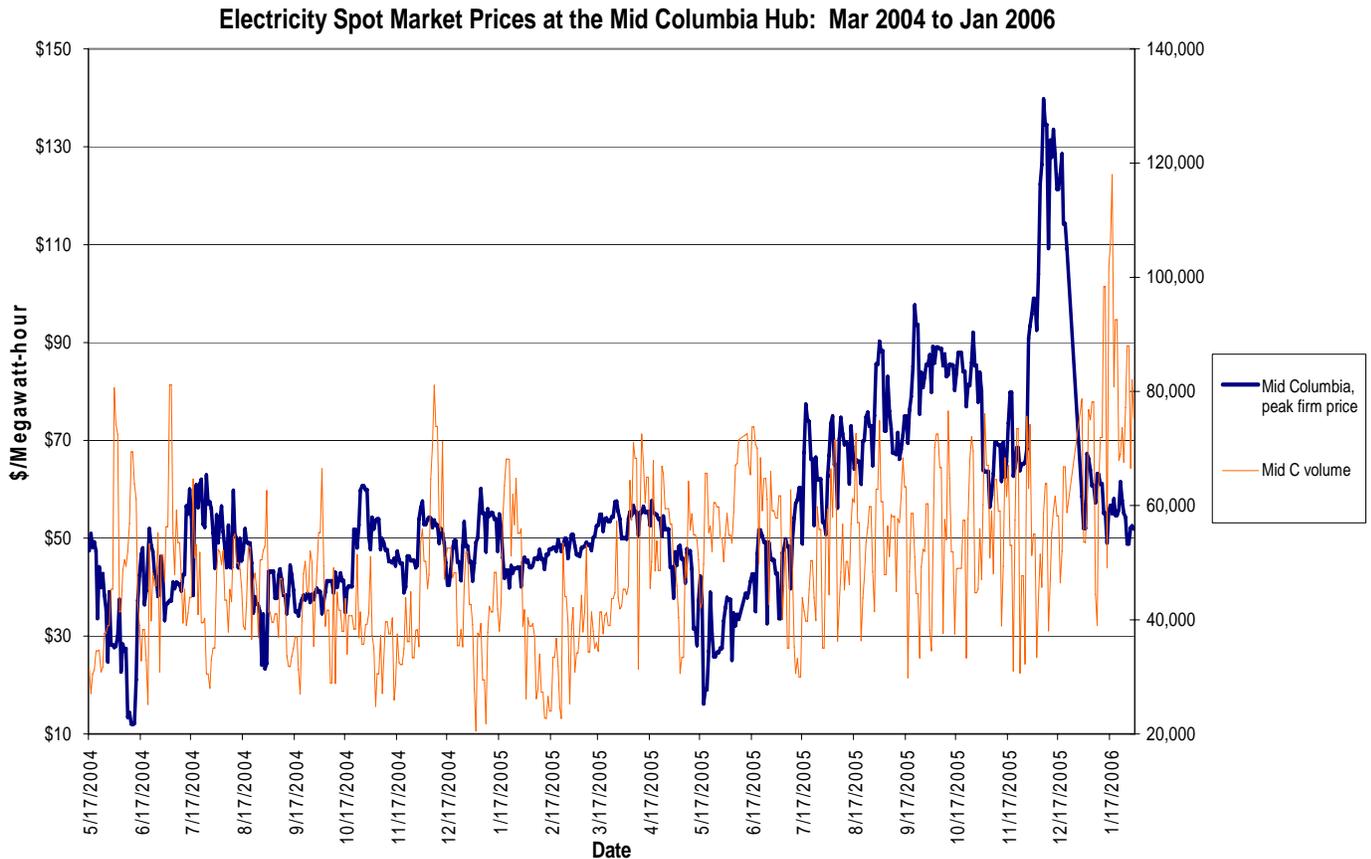
7. Power Exchanged: (Updated: Feb. 7, 2006)

- Average flow of power during the last 30 days
 - California (exported to) 1,674 MW
 - Canada (export to) 1,328 MW
 - Net power export: 3,002 MW

Weekly Energy Price Summary

Energy prices declined a bit last week. Electricity spot market prices (weekly average) at the Mid Columbia trading hub continued an eight week trend, drifting down a couple of dollars to \$50 per Mwh (still high by historical standards), as mild weather continued and rain filled regional hydro reservoirs. Natural gas spot market and futures prices decreased again last week, the eighth week in a row that prices have declined, as mild weather continued in the Midwest and on the East Coast. Natural gas in storage is still at a near record level for this time of year, and prices are poised to decline further – held up by high crude oil prices. Average weekly crude oil spot prices decreased about a \$2.5, trading around \$65 per barrel. Crude oil prices have edged down over the last week as the Iranian nuclear reactor situation moderates and traders (after weeks of reported inventory increases) have begun to acknowledge that global crude oil supply is sufficient for current demand.

After increasing moderately for the past several weeks national and local transportation fuel prices stabilized and in some cases declined a bit last week. Nationally, gasoline decreased a couple of cents per gallon last week, while diesel was up a cent per gallon. Inventories for crude oil, diesel/heating oil and gasoline all remain above normal levels. In Washington state fuel prices were fairly stable over the past week with gasoline up 1 cent per gallon, and diesel down by 2 cent per gallon. The chart below illustrates the two (plus) year trend in average daily spot market prices for electricity at the Mid C trading Hub. As the chart indicates spot electricity prices have declined significantly from Nov-Dec. 2005 levels as weather and natural gas prices (fuel for the marginal generating units) moderated.



Wednesday February 8, 2006

Enron defense: "There was no evil"

By Kristen Hays and Erin McClam, The Associated Press, Seattle Times Feb. 1

Lawyers for former Enron chiefs Kenneth Lay and Jeffrey Skilling insisted Tuesday the men were guilty of no crimes, arguing the company was never infested with fraud and instead fell victim to a sudden crisis of market confidence. Lay and Skilling were pioneers in the energy-trading industry who deeply loved their company — which stands to this day, Lay lawyer Michael Ramsey said, as "one of the finest free-market institutions the world has ever seen."

A federal prosecutor laid out a starkly different version of events, telling jurors in opening statements in the men's trial that they had lied to Wall Street and their own employees to cover up the crumbling finances that drove Enron into bankruptcy protection in December 2001.

Skilling lawyer Daniel Petrocelli went so far as to suggest 13 of the 16 Enron executives who have pleaded guilty to federal crimes were not guilty but caved in to intense pressure from federal prosecutors. "This is not a case of hear-no-evil, see-no-evil," Petrocelli said, at times animatedly jabbing his finger at the jury. "This is a case of there was no evil." Directly countering four years of negative publicity that turned the very name Enron into a symbol of accounting chicanery, Petrocelli said, "There's no evidence any books were cooked at Enron."

But federal prosecutor John Hueston said Skilling and Lay sold Enron stock before a massive fraud was exposed. "This is a simple case," Hueston told jurors, pacing slowly before the jury. "It is not about accounting. It is about lies and choices." Hueston, part of the U.S. Justice Department's Enron Task Force, said Lay and Skilling sold Wall Street, auditors and their own workers a story of a "simply magical ability" for Enron to record consistently impressive growth. "But inside the doors of Enron, something was terribly wrong," he said.

The dramatically different portrayals before a jury of eight women and four men kicked off what could be a four-month trial of Lay and Skilling, who are accused of fraud and conspiracy and could face prison for the rest of their lives if convicted. Ramsey described Lay as "bone-solid, churchbound all his life," and highlighted his millions of dollars in philanthropy. While Lay accepts responsibility for the bankruptcy of Enron, Ramsey said, "Failure is not a crime. Bankruptcy is not a crime."

Both defense lawyers suggested the company was the victim of market panic in 2001, and Petrocelli said Enron behaved like Nasdaq stocks that tanked when the dot-com bubble burst. He called Enron's bankruptcy a tragedy and said the company "was the victim of an immediate, unexpected and temporary drain on its liquidity." Ramsey said market trust in Enron was eroded in the bear market of late 2001, and he blamed former Enron finance chief Andrew Fastow for stealing from the company. "What happened was the odor of the wolf got into the flock, and the flock stampeded," Ramsey said.

When Skilling resigned as Enron CEO in August 2001, turning the reins over to Lay, "He left a sound, vibrant and wonderful company," the defense lawyer said. Lay had been CEO and chairman from 1986 until his resignation in January 2002, except for the six months when Skilling was CEO. Petrocelli blamed three men — Fastow, former Fastow aide Michael Kopper and former treasurer Ben Glisan Jr. — for stealing from Enron. All three have pleaded guilty to federal crimes. But the lawyer said the other executives who have struck plea deals were "hooked" by prosecutors, and he challenged jurors to find the true facts about Enron and ignore four years of "opinion" about its collapse. "They're not guilty of the crimes they pled guilty to," he said, referring to those executives.

Wednesday February 8, 2006

Petrocelli promised Skilling would testify in his own defense, saying he could not keep his client off the witness stand even if he wanted to. Lay has said he will testify as well. Earlier in the day, Hueston had sought to draw out contradictions between what the two chief executives told employees and stock analysts and the realities of Enron's crippled balance sheet. In one example, he said Lay received a memo from Enron Vice President Sherron Watkins on Aug. 15, 2001, warning him that the company could "implode in a wave of accounting scandals."

Yet just five days later, in an interview with Business Week Online, Lay was quoted as saying there were "no accounting issues" at the company, and that "there is no other shoe to fall." Brandishing a penny before the jury, Hueston said Skilling had ordered \$14 million in adjustments to Enron's books in the second quarter of 2000 alone so that the company could beat Wall Street earnings estimates by 2 cents per share.

The first prosecution witness today is expected to be Mark Koenig, former head of Enron's investor-relations department, who worked with Lay and Skilling on quarterly conference calls with analysts. He has pleaded guilty to aiding and abetting securities fraud.

Earlier this month, Koenig revised his plea agreement to attribute to Skilling a statement Koenig originally said he made on a 2001 call to mislead analysts about why Enron folded its money-losing retail energy unit into its profitable trading unit. Prosecutors said the next witness would be Kenneth Rice, a former top Enron trader and Skilling ally who later ran the company's money-losing broadband unit. Rice pleaded guilty in July 2004 to securities fraud and forfeited \$13.7 million in cash and property.

Alternative Fuel Is Attracting Venture Capital

Jim Carlton and Rebecca Buckman. Wall Street Journal, Feb 2, 2006.

Even before President Bush called for a push into petroleum alternatives in the State of the Union address, energy start-ups were venture capitalists' latest technology craze.

Some of the same people who helped to finance Silicon Valley's succession of electronics-technology booms see promise in energy technology. One of the valley's best-known venture capitalists, Vinod Khosla -- who co-founded Sun Microsystems Inc. in the early 1980s and is now a partner at Kleiner, Perkins, Caufield & Byers -- says he has distanced himself from his firm recently in part to focus more on alternative energies.

Through a fund called Khosla Ventures, Mr. Khosla says he has sunk his own money into a half-dozen start-ups over the past four years involved in "clean fuel" technologies, such as making ethanol a viable substitute for much of the petroleum now used to fuel cars. One of those biofuel companies, BC International Corp. of Dedham, Mass., has been around for more than a decade and is developing an ethanol plant in Jennings, La., according to its Web site. Mr. Khosla, who still keeps an office at Kleiner, declines to discuss any of his investments in detail.

Mr. Khosla says he is particularly enamored with technologies that help produce ethanol from sources other than the edible part of corn, the main technique now in use in the U.S. By using cornstalks, grasses and even woodchips -- as President Bush suggested in his speech -- large-scale ethanol production would pose less of a threat to food supplies, Mr. Khosla says.

From 1999 through 2004, venture capitalists invested an estimated \$4.4 billion in the energy-technology sector, including renewable energy and more-traditional energy projects. That compares with just \$380 million in venture-capital money invested in the sector from 1993 through 1998. Energy tech got a further \$500 million in venture capital during the first half of 2005,

Wednesday February 8, 2006

according to Nth Power, a San Francisco venture fund, and Clean Edge, a San Francisco market-research firm.

Venture capitalists take stakes in small companies with promising technologies, counting on at least a few of their risky bets to pay off big later when the companies are sold or go public. They have profited hugely from investments in startups like Apple Computer Inc., eBay Inc. and Google Inc. They say even more money is likely to flow into new energy companies after the president's call to reduce the nation's "addiction" to oil imports through the use of alternative fuels.

"Even though Jimmy Carter espoused energy independence, Bush has put a timeline on it," says Nancy Floyd, managing director at Nth Power, referring to the president's call for developing new ways to produce ethanol within six years. "This means there's going to be a lot more venture activity in this sector," she adds. Nth Power's \$250 million in assets under management are devoted solely to new energy technologies.

The VC money is chasing technologies aimed at increasing the supply of renewable energy, as well as for making existing energy plants and other infrastructure cleaner and more efficient. Venture capitalists sank nearly \$181 million into alternative-energy companies last year -- nearly double the \$103 million invested in that sector in 2004, according to estimates by PricewaterhouseCoopers, Thomson Venture Economics and the National Venture Capital Association. In 1995, investment in the sector was a scant \$2.95 million.

Some high-profile investments in the past two years include Amp Resources, a Draper, Utah, power-generation company with geothermal expertise that is being acquired by Raser Technologies Inc., of Provo, Utah, and solar-power companies Nanosolar Inc. of Palo Alto, Calif., and Energy Innovations Inc. of Pasadena.

The price of traditional fossil-fuel energy is soaring as supplies world-wide have become shaky. As a result, alternative energies that used to be prohibitively expensive are getting new attention from policy makers. For example, more than 20 states have mandated that their energy supplies come from renewable sources. In California, Gov. Arnold Schwarzenegger has set a goal of getting as much as a third of the state's energy in this way.

But great hurdles stand in alternative energy's path to the mainstream, skeptics warn. Billions of dollars have been poured into both solar and wind energies, for example, and both alternatives remain relatively expensive without subsidies, although prices are dropping. Also, fuel-cell engines, once widely regarded as a possible replacement to gasoline-driven engines, haven't yet proved durable, critics say.

While ethanol may address concerns about U.S. dependence on oil imports and cut down on one type of pollution, it raises other environmental questions. Bob Grady, who runs the Carlyle Group's U.S. venture-capital practice and who served as an environmental policy adviser to the first President Bush, says ethanol can, in some cases, increase smog, even as it helps reduce carbon monoxide.

Still, Mr. Grady is on the alternative-energy bandwagon and says Carlyle has looked at possible investments in the solar and fuel-cell areas. "I do think it's a long-term trend to try to reduce emissions from the use of energy, and to develop alternative sources of energy," he says. "I don't think the pressure to do that is going to yield anytime soon."

Energy has become more attractive, venture investors say, because new technologies can make alternative sources profitable in ways they weren't before. Recent innovations mean it is easier to make products such as ethanol and solar panels on a large scale, says Erik Straser, a general

Wednesday February 8, 2006

partner at Mohr Davidow Ventures, of Menlo Park. As a result, venture capitalists can focus "not on how to build a better factory, but on how to build a 'secret sauce,'" relying on bioengineering or nanotechnology, he says.

Already in Brazil, "flex fuel" cars that burn either ethanol or gasoline are surging in popularity, Mr. Khosla says. There are some five million flex-fuel vehicles on the road in U.S., he notes, although many owners are unaware they have the option. Ethanol production in Brazil relies on sugar-cane crops that largely aren't needed for the local eating supply. "The cars are already here and we know they work," says Mr. Khosla. "It's a much more economic solution than spending hundreds of billions on security in the Mideast," he adds.

Mr. Khosla is a major ethanol evangelist, talking up the fuel with the Bush administration and Democratic Party leaders. He says the U.S. could allocate the farmland necessary for growing crops that would be turned into "cellulosic ethanol," made from prairie grasses, forest clippings and agricultural waste. He says it will probably take several years to overcome limitations on the technology, such as the fact that few U.S. gas stations in the U.S. are equipped to dispense ethanol.

Executives at VantagePoint Venture Partners say they have invested roughly \$50 million on energy-infrastructure projects, including three ethanol plants and factories for making fuel from other organic sources, such as biomass, which is waste from animals and other organisms. The San Bruno, Calif., firm has invested about \$100 million in energy-technology companies, a small fraction of its \$2.8 billion in assets under management, but one of the fastest-growing parts of its portfolio. "If you look out five years," says Stephan Dolezalek, a VantagePoint managing director, "this is a sector that can be every bit as big as the Internet."

Addiction Treatment: Bush's Latest Energy Solution, Like its Forebears, Faces Hurdles

John J. Fialka and Jeffrey Ball. Wall Street Journal, Feb 2, 2006.

With oil prices stuck at more than \$60 a barrel, President Bush is touting "cellulosic ethanol" as a 21st-century panacea for the U.S.'s addiction to oil. In his State of the Union address Tuesday, Mr. Bush said energy made from "wood chips, stalks or switch grass" could be available at gas pumps in six years and could supply nearly a third of the fuel needed to keep Americans on the road.

The plan is the latest in a long line of promises from Washington to support new forms of alternative energy, going back to President Carter's promotion of synthetic fuels. It offers some intriguing new technology and the possibility of widespread support from environmentalists, farmers and auto makers.

Like earlier promises, most of which failed, Mr. Bush's surprise promotion of cellulosic ethanol also faces huge hurdles. For one, the budget-constrained White House is offering little money to back up its rhetoric: just \$150 million next year, hardly enough to revolutionize a multibillion dollar energy market.

The fuel also faces distribution problems and a lack of properly equipped vehicles. And an unpopular gas tax might well be needed to make ethanol a competitively priced product at the pump.

The proposal marks a switch in emphasis for a politically weakened president. The administration previously has said the route to energy independence lay in encouraging domestic oil and gas drilling, including opening the Arctic National Wildlife Refuge. Such proposals, which have repeatedly died in Congress amid bitter political wrangles, were notably absent in this year's speech.

Wednesday February 8, 2006

By contrast, cellulosic ethanol can draw support from a surprisingly diverse political coalition. Scientists, investors and policy makers say it is increasingly viable to make fuel from farm waste, also known as "biomass." For one, it is cheaper than corn-based ethanol, the fuel that has been a heavily subsidized favorite in Washington. Private-sector investors -- from Virgin mogul Richard Branson to Canada's Iogen Corp. -- are putting money into the concept in hopes of seeing an ethanol boom in the U.S. similar to one in Brazil.

Environmentalists like the idea because burning the fuel doesn't pollute as much as conventional gasoline. Defense hawks, notably Reagan Secretary of State George P. Shultz and Clinton Central Intelligence Agency Director James Woolsey, promote it as a way to boost national security. Struggling U.S. auto companies like it because they have a competitive advantage over the Japanese on so-called flexible-fuel vehicles that can switch between gasoline and alternatives.

And because the fuel can be made from a wide range of agricultural products, it draws backing from a geographically diverse range of politicians, from New York Republican Gov. George Pataki to a bipartisan group of elected officials in California. The fuel is even popular in farm states such as Iowa that tout conventional corn-based ethanol, since it can make heavy use of corn stalks.

Many experts say conservation or a gas tax is the best way to dent import demand. Mr. Bush has rejected these approaches as conflicting with his free-market bent and has preferred throughout his term to focus on new drilling and new technologies. The White House estimates the president has provided \$10 billion in spending on new energy technologies since taking office in 2001.

Beyond ethanol, Mr. Bush's new "Advanced Energy Initiative" includes spending for research on hydrogen cars and hybrid-car batteries that can be recharged overnight, as well as money for solar and wind energy. His grand goal, as he stated in his national address, is "to replace more than 75% of our oil imports from the Middle East by 2025."

That would mark a significant departure from the future the government now predicts. The Energy Information Administration says the U.S. will import more crude oil and finished petroleum products, not less -- more than 70% of projected oil use in 2025, compared with 62% last year. Mideast imports are expected to become more important, rising to 30% of U.S. crude-oil and refined-product imports in 2025 from 21% last year.

The EIA soon will release new data ratcheting down the expected U.S. reliance on imports, based on the rise in oil prices, which the EIA reasons will spur higher conservation and domestic production. Nonetheless, Mr. Bush's plan would mark "quite a change," says John Conti, director of the office of integrated analysis forecasting at the EIA. It is "a very aggressive goal."

John Felmy, chief economist at the American Petroleum Institute, the oil industry's main trade group, says the goal is "achievable," but not without big changes. He says it would likely require a boost in domestic drilling, a major conservation effort or an increase in U.S. oil imports from other parts of the world, none of which is under way.

Nearly half of the oil consumed by the U.S. is burned in cars and trucks. Over the years, the U.S. has debated toughening federal fuel-economy requirements, created in the mid-1970s in the wake of the Arab oil embargo. Still, the average fuel economy of cars and trucks has been flat for more than a decade. One reason: Sport-utility vehicles and pickup trucks, which Americans snapped up when gas prices were low, aren't subject to the toughest fuel standards.

Some auto makers argue that improving fuel economy won't reduce oil consumption: Consumers whose vehicles go farther on a gallon of fuel will simply drive them more.

Wednesday February 8, 2006

Hence the appeal of alternative sources. One concerted effort, which ratcheted up amid high oil prices in the early 1980s, was a government-sponsored research program to convert coal into synthetic natural gas. The project succeeded in the lab but "synthetic fuel" didn't make much of a market impact after oil prices subsequently fell.

In the 1990s, the auto industry talked up the potential of battery-powered cars, largely as a way to meet clean-air regulations in California, the nation's biggest auto market. That effort fizzled in part because of the cost and difficulty of producing batteries that lasted long enough.

A few years ago, proponents began talking enthusiastically about cars that would run on fuel cells powered by hydrogen. President Bush promoted the technology in his 2003 State of the Union address. Though he still touts it, some of the euphoria has subsided. The most realistic way to produce hydrogen is from a fossil fuel -- natural gas. There also is no viable infrastructure for delivering hydrogen to filling stations.

Some vehicles run on compressed natural gas -- another fossil fuel but one that burns more cleanly than does gasoline or diesel. But it also isn't widely available at gas stations and its use is limited to fleets, such as buses and taxis, which can be refueled at central locations.

Now comes the focus on cellulosic ethanol. The biggest barrier to its widespread use has been cost. Estimates vary on how much more expensive it would be to make than gasoline.

Car makers periodically argue that only by raising gasoline taxes, a politically unsustainable proposal, will consumers make the switch to more fuel-efficient vehicles.

Even if ethanol costs come down, distribution remains tricky. Ethanol can be transported along existing pipelines as long as it is blended with petroleum products in concentrations of less than 10%, says Pierpaolo Cazzola, an analyst at the International Energy Agency, a Paris-based energy watchdog for industrialized nations. Any more than that and ethanol can corrode pipelines. How to manage the distribution of ethanol is "a bit of debate," he says.

About five million vehicles that can use gas and ethanol are on the road now, but many of those drivers don't know their vehicles are capable of using ethanol. Only 600 filling stations offer E85, a blend of 85% ethanol and 15% gasoline, and they are concentrated in the Midwest. That number could quadruple this year, but it still would be a fraction of the 170,000 fueling stations in the country. Michigan, home to the American auto industry, has only a handful of E85 stations.

Some auto companies -- notably the Japanese, who haven't invested much in the technology -- remain cautious. Toyota Motor Corp. sells flex-fuel vehicles in Brazil, but not in the U.S. Bill Reinert, national manager of Toyota's U.S. advanced-technologies group, is skeptical of corn-based ethanol because of the huge amounts of land and water required to grow the corn. Made in large quantities, he says, cellulosic ethanol holds more promise.

Still, he has questions: How does it perform in the car? What might future production look like? What are the environmental issues associated with that production? "There's no real silver bullet out there," Mr. Reinert says. "Each fuel has its own particular problems."

Brazil is the main success story touted by ethanol enthusiasts -- it gets half its motor fuel from ethanol. The country's effort was launched in 1975, but ethanol in Brazil only became competitive recently after gasoline prices rose sharply. It also took years of government subsidies totaling at least \$16 billion, plus tax breaks that cost several billion dollars more. Brazil mandated that the fuel be available at 29,000 filling stations -- a cost borne by state-run oil giant Petrobras.

Wednesday February 8, 2006

Bush officials are optimistic their efforts can push the technology over the hump. The \$150 million they are seeking for the year starting Sept. 30 -- up from \$90 million this fiscal year -- would go to research on enzymes and yeast that can break down materials including wood chips and "switch grass," a grass that grows quickly without much fertilizer. The process is similar to making bootleg whiskey.

According to Doug Faulkner, acting assistant secretary for energy efficiency, the Department of Energy's researchers had a breakthrough in 2004 when they figured out how to drastically cut the cost of producing sugar from corn stalks. Now, he says, they can produce ethanol from corn waste for \$2.30 a gallon, although that doesn't include distribution or marketing costs. The average U.S. retail price of regular unleaded gasoline is \$2.35 a gallon, according to AAA, the motoring group.

The Energy Department has received unverified reports from outside researchers that the cost of producing cellulosic ethanol could be as low as \$1.30 a gallon. The president's goal is, by 2012, to bring the retail price of cellulosic ethanol below the retail price of gasoline.

Congress last year authorized loan guarantees for companies that want to start cellulosic-ethanol plants. If the money is approved, the loans would cover as much as 80% of the cost of the first four cellulosic-ethanol plants built in the U.S., up to \$250 million each.

Officials say once production costs fall, other hurdles should disappear. "The marketplace will take care of that," Allan Hubbard, head of the White House National Economic Council, told reporters. "Once the product is available, the distribution system will respond quickly."

In the private sector, the front runner is Iogen, a closely held Ottawa company. It has attracted powerful partners, including Royal Dutch Shell PLC, to help build industrial-scale plants to produce the fuel.

"The President's speech was a good signal," says Jeff Passmore, Iogen's executive vice president. He says the company is looking at sites in southwestern Idaho and in the Canadian provinces of Alberta and Saskatchewan for its first plants and is preparing to break ground at one of them in the summer of 2007.

Mr. Passmore said Iogen has signed contracts with 300 Idaho farmers to take 400,000 tons of their wheat and barley straw a year. The lead sponsor of the loan guarantees was Idaho Republican Sen. Larry E. Craig, who has been pushing to get Iogen to locate a plant in his state.

Mr. Bush's push for cellulosic ethanol gives a small helping hand to General Motors Corp. and Ford Motor Co., who both are suffering from significant financial woes. While Toyota has shunned ethanol, those companies see it as a way to improve their environmental image, which is tainted from pushing SUVs.

"Ethanol can provide relief for customers at the pump and lessen America's dependence on foreign oil," said Bill Ford, chairman and chief executive of Ford, in a written statement yesterday welcoming the White House initiative.

GM is spending tens of millions of dollars on an ethanol-awareness campaign: "Live Green Go Yellow." It is set for an expensive launch during Sunday's Super Bowl in both pre- and post-game advertising spots. This year, GM plans to send a letter to the one million owners of its flex-fuel vehicles, including those who might not know they run on ethanol. It will offer them a free, yellow gas cap that can be installed at their local dealer to remind drivers the car can run on ethanol.

Wednesday February 8, 2006

Wind power capacity added in '05 sets record

OGJ, Feb. 2

The US wind energy industry broke its annual capacity installation record of 1,697 Mw of wind power in 2005 by installing 2,431 Mw, which amounts to more than \$3 billion of new generating equipment in 22 states, said the American Wind Energy Association (AWEA).

The new capacity boosted total US wind-power generating capacity to 9,149 Mw and the number of states with commercial wind turbine installations to 30. Total US generation capacity in 2004, the last year for which the US Energy Information Administration has final numbers, was 962,942 Mw.

During 2006, the industry expects installation of 3,000 Mw of wind generation capacity. Congress has approved a 2-year extension of a tax credit for wind energy production.

AWEA estimates that currently installed wind power capacity will save more than 500 million cubic feet/day of natural gas this year. Marketed gas production in 2004 averaged 53.5 billion cubic feet/day.

California has the most wind power capacity installed, 2,150 Mw. Texas has 1,995 Mw installed and more proposed for 2006.

Minnesota aims to get biodiesel back in gear

Rick Barrett, Feb 1, 2006 - Milwaukee Journal Sentinel/PowerMarketers

After a couple of sputtering starts, Minnesota's biodiesel industry has another nine days to fix problems with the fuel that may have led to trucks breaking down on the road, hefty repair bills and a lot of angst.

Biodiesel is diesel fuel made with a renewable energy source, such as soybeans. In Minnesota, it has been blamed for clogging truck fuel filters, perhaps because of high glycerin levels that gelled in cold weather.

A Minnesota law requiring diesel fuel to contain 2 percent biodiesel won't be reinstated until Feb. 10, extending an emergency waiver that would have expired in mid-January. Biodiesel advocates asked for the extension so that they could get to the root of any problems and adopt a strict quality-control plan ensuring that bad fuel won't surface again.

In Wisconsin, truckers and biodiesel suppliers are watching what happens in Minnesota. Both states have soybean industries that could benefit from widespread adoption of biodiesel.

"The positives far outweigh the negatives, especially for the Midwest," said Tony Hartmann, chief executive officer of Great Lakes BioFuels, a Madison biodiesel supplier.

But some Wisconsin trucking companies aren't so quick to embrace the alternative fuel. Several firms near the Minnesota border complained that biodiesel cost them thousands of dollars in engine breakdowns and time lost on the road.

"Even if it comes back, we are not going to put biodiesel in our trucks," said Tom Chrismer, vice president of Valley Cartage trucking in Hudson.

Valley Cartage bought biodiesel from a Minnesota supplier last fall. Shortly after, the trucking company changed about 50 fuel filters in a month as trucks ran in fits and starts.

"We aren't the only ones that had problems with this," Chrismer said. "I think it's going to take quite a while before trucking companies have confidence in biodiesel again."

Wednesday February 8, 2006

There were two spates of quality problems with biodiesel in Minnesota, which is the first state to adopt a law requiring its widespread use. Some of the first problems may have come from dirty fuel storage tanks rather than the soybean blend.

Following Hurricane Katrina, diesel fuel supplies ran low nationwide. Suppliers drained their tanks, refilled them with whatever quality fuel they could find and stirred up sludge on the tank bottoms. That alone could have clogged fuel filters, said Sherry Lowe, spokeswoman for the Minnesota Soybean Growers Association.

An early winter cold snap could have caught some diesel fuel users off-guard, causing them to use the wrong blend of fuel for low temperatures. But at least some biodiesel with high glycerin levels or some other problem was distributed in Minnesota as truckers already were upset about the first problems. "It was a very sad, unfortunate event when we were trying so hard to do something so good," Lowe said.

Soybean growers say they don't know how much biodiesel made at improper specifications was delivered in Minnesota. They aren't sure where it came from, either, which has made it difficult to convince truckers that the problems have been solved.

State officials are sampling fuel supplies and digging into clogged fuel filters for evidence of what went wrong. The National Biodiesel Board, based in Jefferson City, Mo., also has become involved. "There's no room for poor-quality biodiesel in the marketplace," said Steve Howell, technical director.

"Although investigations have indicated that other factors unrelated to biodiesel may have led to at least some of the filter- plugging reports in Minnesota, there's no question that off- specification biodiesel can have a severe reaction in cold weather, even in low blends," Howell said.

Wisconsin wants to jumpstart more investments in biodiesel, ethanol and other renewable energy under a \$1 million grant program announced by Gov. Jim Doyle in December. So far, the state has not experienced problems with biodiesel, truckers and state officials said.

But with any new technology, it's not unusual to have "hiccups" in the early stages, Hartmann said. "The new (biodiesel) plants in Minnesota are using some competing technologies. As they come online, there's going to be a shakeout period," he said. It's also not unusual for fuel filters to clog when switching to biodiesel because the fuel dissolves gunk trapped in a fuel system and washes it into a filter, where it's trapped and removed. The clogging should end after a few filter changes, biodiesel advocates said.

But for many reasons, including highway safety, truckers say they can't afford roadside breakdowns because of clogged filters. They also can't afford lost road time while their vehicles are in the shop for filter changes.

"It's simply not acceptable," Chrismer said. "I can't flip a coin and hope" that trucks will have enough power to climb a steep hill. The Minnesota problems were sporadic, which has made them puzzling. Many trucking firms didn't have clogged filters or engine performance issues. Still, 62 percent of the Minnesota Trucking Association's fleet managers who responded to a December survey reported clogged fuel filters, engines failing to start, power loss on hills and roadside breakdowns.

Seven of nine trucks would not start during a cold snap at a trucking terminal owned by Lakeville Motor Express of Roseville, Minn. "I have a pretty damn good hunch" it was related to biodiesel, said Oscar Torgeson, fleet maintenance manager. But the problems have been exaggerated by truckers who oppose the biodiesel mandate, said Lowe of the soybean growers association. A

coalition of industries that use diesel fuel, led by truckers, tried to block the Minnesota legislation over fears of higher fuel costs, supply shortages and performance issues.

Lowe said she fears that biodiesel will be wrongly blamed for problems after the emergency waiver is lifted and the fuel comes back. "That's an unsubstantiated, mean-spirited way to continue to try and get rid of the mandate," she said. The Minnesota Trucking Association isn't against biodiesel, though it opposed the mandate, said President John Hausladen. Truckers still are not confident that Minnesota's biodiesel dilemma has been solved, partly because they haven't been told exactly what went wrong.

"Are we hopeful? Yes. But at this point, we have no data or factual basis to be confident," Hausladen said. The next introduction of biodiesel in Minnesota needs to be perfect, or close to it, to silence critics. The Minnesota Soybean Growers Association has recommended sanctions against biodiesel suppliers and handlers who introduce bad fuel into the marketplace.

"All of the rest of the states are watching what happens with this," Lowe said. "Unfortunately for us and fortunately for them, they're going to know exactly what not to do." A recycling company is building Wisconsin's first biodiesel refinery in DeForest. To avoid repeating Minnesota's problems, biodiesel advocates here are calling for quality-control standards set by the National Biodiesel Board that are voluntary. "It's not that biodiesel didn't work in Minnesota. It's just that they had some problems," Hartmann said. "They had two hiccups right out of the gate."

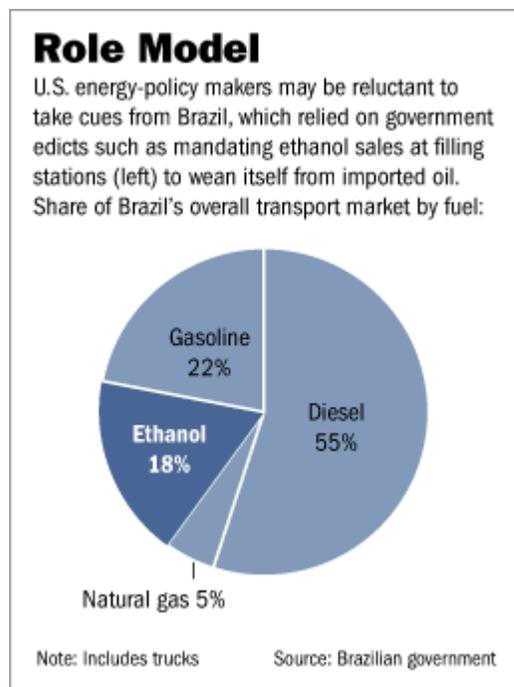
How Brazil Broke Its Oil Habit

Government's Central Role May Prove Unpalatable to U.S.

By DAVID LUHNOW, THE WALL STREET JOURNAL *February 6, 2006*

Brazil, once deeply dependent on Middle Eastern oil, has managed to do what President Bush has laid out as a goal for the U.S.: end its "addiction" to imported oil in part by using alternative fuels.

But Brazil's experience shows that to successfully copy its example, the U.S. may have to make political choices that U.S. politicians have ducked in the past, including raising gasoline taxes, ending government support for crucial agricultural products such as sugar and corn, and opening protected agricultural markets.



"To change a country's energy habits, you need determined public policies," says Eduardo Carvalho, head of the Sao Paulo state sugar-growers association that accounts for most of Brazil's ethanol output.

Making ethanol a success in Brazil took determination that at times seemed foolhardy. The country launched its ethanol program in 1975, but it took until a few years ago for the fuel to become competitive with gasoline without government support. For many years, the international price of gasoline was so low compared to Brazil's home-grown ethanol that many Brazilians felt the project was a waste of time and taxpayer money.

But the government stuck with it, using a mixture of industrial-policy tools to produce the fuel, reduce its cost and make it widely available. The government mandated that filling stations offer ethanol and ensured that consumers would buy it by ordering that it be significantly cheaper at the pump than gasoline -- making up the

Wednesday February 8, 2006

difference through subsidies. Eventually, demand for the new fuel allowed producers to invest in new technology that helped lower its price below that of gasoline.

The government helped make ethanol affordable through free-market policies, too. Brazil's ethanol is made from sugar, which had been coddled with subsidies for decades. When the cost of the ethanol program became prohibitive in the early 1990s, Brazil slashed its subsidies and forced its farmers to become more productive to survive and thrive in a global market. Since growing the sugar represents by far the biggest cost in making Brazilian ethanol, trimming sugar prices was the key to making more affordable fuel.

Transplanting those lessons from the sugar fields of Brazil to U.S. corn fields -- the source of most U.S.-made ethanol -- would be difficult. Consider the idea of a gasoline tax. While U.S.-made ethanol is becoming competitive with gasoline given high oil prices, and does enjoy tax breaks, any dip in oil prices could cause consumers and producers to abandon the fuel before technology has a chance to help lower its production cost.

Over the years, U.S. presidents have become more wary of government mandates and overt industrial policies. Republican and Democratic presidents have paid dearly for raising gasoline taxes -- including Mr. Bush's father, who approved a small gasoline tax to help reduce the federal-budget deficit.

Even certain free-market tools might have a hard time in Washington. A Brazil-inspired ethanol program would mean ending federal support for U.S. corn and sugar farmers. That would probably raise prices in the short run as less efficient U.S. producers failed, but eventually help lower the price of the crops as more-productive farmers stepped in, agricultural analysts say.

For that scenario to unfold, the U.S. would have to slash farm subsidies that are protected by a powerful farm lobby and a majority in Congress. At the same time, to get the full benefit, the U.S. would have to open up its protected sugar and ethanol markets, which are blocked by restrictive tariffs and quotas.

"A free market in something like sugar would definitely help lower prices eventually. But protections for the industry have been in place for decades," says Paul Drazek, a former trade adviser to the U.S. Department of Agriculture.

Opening up the ethanol market itself might make strategic sense for a government concerned that windfall oil revenue in the Middle East help bolster terrorist activities world-wide.

"It makes no sense to tax ethanol coming in from friendly countries like Brazil when we do not tax oil imported from countries like Saudi Arabia," says Gal Luft, executive director of the Institute for the Analysis of Global Security, a Washington think tank that specializes in energy-security issues.

Another possible role for U.S. politicians may be to ensure ethanol is widely distributed in gasoline stations that might be hostile to a rival product. In Brazil, the government simply ordered state-run oil company Petroleo Brasileiro SA, or Petrobras, to distribute the fuel.

In the U.S., about 500 gas stations carry the fuel. Without competition from more filling stations carrying ethanol, distributors have little incentive to try to undercut gasoline prices, denting ethanol's attraction. Auto makers such as Ford Motor Co., which are ramping up production of flexible-fuel vehicles that run on ethanol or gasoline, say the government needs to offer bigger tax incentives for gas stations to offer ethanol.

Wednesday February 8, 2006

"We can produce the flex-fuel vehicles, but we can't do it all alone. We need government policy to do its part," says Curt Magleby, Ford's public-policy manager.

Many critics of industrial policy argue such programs invariably become handouts to industries that should make the investments on their own. The U.S. has had a string of failures in this regard, including an effort to make gasoline from coal under President Carter, and a project to produce a nuclear breeder reactor under President Reagan.

Federal budget juicing the region, Seattle PI, Feb. 7.

http://seattlepi.nwsource.com/opinion/258474_metroed.html

Corn power put to the test, NYT, Feb. 7

http://www.nytimes.com/2006/02/07/science/07fuel.html?_r=1&oref=slogin

FERC warns of price hike from Alaska gas pipeline delay, Oil and Gas Journal, Feb. 7.

http://ogj.pennnet.com/articles/article_display.cfm?Section=ONART&C=GenIn&ARTICLE_ID=247471&p=7

Saudi Minister: \$45-50 oil required, NYT, Feb. 7.

<http://www.nytimes.com/aponline/business/AP-Oil-Saudi-Minister.html>

Venezuela's Chavez threatens US on oil, NYT, Feb. 6.

<http://www.nytimes.com/aponline/business/AP-Venezuela-Oil.html>