

Weekly Energy Status Report

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

- Power Pool peak load (Friday, 1/27): 42,133 MW
- Reserve margins were within comfortable ranges for Northwest Power Pool utilities.

2. Electricity, Petroleum and Natural Gas Prices

- Weekly Range at Mid-C: \$35.7-\$43.6 per MWh
- Approximate change from previous week \$0 per MWh
- "Normal" price range, before 5/00 \$20-\$40 per MWh
- Petroleum, West Texas Intermediate: \$32.28 per barrel (year ago: \$18.01)
- Approximate change from last week: \$-1.63 per barrel
- Seattle gasoline price (1/27) \$1.439 per gallon (year ago \$1.247)
- Natural gas, Sumas Hub: \$5.24 per million British Thermal Units (year ago \$2.06)

3. California Electricity Situation

- CA ISO Alert Status
 - o A stage 2 alert was declared on July 10, 2002.
 - o Restricted maintenance warning declared, Sept. 23, 2001
 - o Most recent rotating blackouts: Tuesday, May 8, 2001
- Energy News Headlines from California and the Nation
 - o Hybrid cars are catching on (New York Times, Jan. 27)
 - o US wind industry turns in another solid year of growth (Transmission and Distribution World, Jan. 24)

4. River and Snowpack Information (Updated Jan. 27, 2002)

- Observed January stream flow at The Dalles: 69% of average
- Observed January precipitation above the Dalles: 63% of average
- Observed 2003 snow pack as of Jan. 20: 71% of average
- The latest forecast of Columbia River stream flows this January through June is 80.5 million acre feet, 75 percent of normal: National Weather Service Northwest River Forecast Center.

5. Energy Conservation Achievement (Updated Jan. 13, 2002)

- **State Agencies:** From January to November 2002 electrical usage was 6.8 % less and natural gas usage was 6.0% less compared to the same period in 2000.

6. Winter Load Loss/Reservoir Impacts/Fish (Updated Jan. 6)

- Federal reservoir system storage: 53% full
- Estimated winter (2002/03) load loss probability of 4%

7. Power Exchanged: (Jan. 6)

- Average flow of power during the last 30 days
 - o California (exported to) 1597 MW
 - o Canada (imported from) 653 MW
 - o Net power export: 944 MW

Tuesday January 28, 2003

Hybrid Cars Are Catching On

By DANNY HAKIM

DETROIT, Jan. 27 — Hybrids, vehicles that save gasoline by combining electric motors with internal combustion engines, are emerging as the first alternative-powered cars to show signs of catching on with automakers and some consumers since the automobile's early days.

[Toyota](#) and [Honda](#) are already selling tens of thousands of hybrids, and [General Motors](#) and [Ford](#), worried about ceding another fast-moving market to the Japanese, have announced plans to join them. The hybrid's rise has been encouraged by pressure from environmentalists and regulators, particularly California rules curbing greenhouse gases and smog-forming pollutants.

"Hybrid technology is one that has great appeal because we don't have to really invent anything; we know they work," said William Clay Ford Jr., Ford's chairman, in a recent speech. "If these vehicles don't get customer acceptance, I really don't know what we do next."

A hybrid's battery is recharged by the internal combustion engine and by collecting energy when the car brakes. The battery powers an electric motor that supplements, or takes over for, the gasoline-powered engine. In the Honda Civic hybrid, an electric motor assists when the car is climbing hills or accelerating sharply. In the Toyota Prius, the electric motor takes over at low speeds. In both, the gas engine shuts off when the car stops.

Hybrids have until now been something of a curiosity and account for a small fraction of overall sales. Only three models — all small cars — are available, one from Toyota and two from Honda, and they cost a few thousand dollars more than conventional cars. About 150,000 have been sold worldwide since hybrids were introduced in the late 1990's, fewer than the number of vehicles typically produced by a single auto factory in a year.

But carmakers now appear ready for a much broader rollout. Earlier this month, at the North American International Auto Show here, G.M. — previously the industry's most vocal skeptic — publicly embraced the technology. The company said it would sell a hybrid version of its Saturn Vue sport utility vehicle in 2005 that would approach 40 miles a gallon in fuel economy, compared with mileage in the low 20's for current models. G.M. said it would offer vehicles with more limited forms of hybrid power, too, promising 10 to 15 percent improvements in fuel economy on four other models by 2007.

Also at the auto show, the annual beauty pageant where the industry trots out its latest designs and biggest pronouncements, Toyota said it would sell the first luxury hybrid, a Lexus sport utility vehicle, starting next year — part of a plan to sell 300,000 hybrids annually by mid-decade. Ford plans to sell what will probably be the first hybrid sport utility vehicle, a version of the Escape, at the end of this year, and showed off a new hybrid prototype called the Model U.

Even the Army, which pays as much as \$400 a gallon in battlefield fuel costs, had a hybrid on display — a hulking diesel combat vehicle, built by G.M., that is one of several prototypes being considered for service within a few years, including hybrid Humvees.

"You run those things on battery power; there's no noise," said Maj. Gen. Ross Thompson III, the head of the army's Tank, Automotive and Armaments Command, explaining the appeal of hybrids

Tuesday January 28, 2003

for the military. "For a reconnaissance mission, or if you want to not be noticed, you can use the batteries."

A century ago, in 1903, gasoline-powered Oldsmobiles shouldered past steam-powered Locomobiles to become America's top-selling brand. Never again would electric or steam cars rule the road. There is scant suggestion that hybrids may replace gasoline-powered cars in the same way. Among other things, two motors cost more than one.

But Stephen Girsky, an auto analyst at [Morgan Stanley](#), predicts that hybrids could grow to 10 to 15 percent of American vehicle sales, which approached 17 million last year. Government incentives, gas prices and how much manufacturing costs can be reduced will be important factors, he said. John Casesa, an analyst at Merrill Lynch, said that because the Japanese "view this as a core technology over the next decade," domestic automakers have to respond. "Inevitably, we're moving toward a future with higher fuel economy standards, risk to energy supplies and higher environmental consciousness," he said. "So there's a market pull here."

In addition to representing a response to the latest competitive threat from Japan, Detroit's hybrid plans are good for public relations, especially as hot-selling sport utility vehicles come under increasing criticism for how much gasoline they consume. A recent ad campaign by an evangelical group suggested that Jesus would find sport utilities morally unfit; another, orchestrated by Arianna Huffington, argued that these vehicles increased American reliance on oil from the Middle East.

But there remains considerable debate within the auto industry about whether hybrid technology is too costly to become universal — and whether its advantages are so modest that it represents a diversion from more worthy approaches to improving fuel economy.

"Right now," said Wolfgang Bernhard, chief operating officer of the Chrysler division of [DaimlerChrysler](#), "everybody is jumping on the hybrid bandwagon and saying this is the most important thing and without it the world's going to end. It reminds me of the hype we had around e-business in the early 90's."

Daimler this year plans to sell a small number of hybrid Dodge Ram pickups tailored for contractors, who could use the trucks as mobile power generators. The company's German executives, though, prefer the updated diesel-engine vehicles already prevalent in Europe; diesels achieve 25 percent better mileage than comparable gasoline-powered cars. American environmentalists, worried about emissions of smog-forming pollutants, oppose a broad reintroduction of diesel-powered vehicles.

To Japanese-based carmakers, the choice is clear from an environmental standpoint. Hybrids are "the solution for today," said James E. Press, executive vice president of Toyota Motor Sales U.S.A.

"What's the cost of fuel?" he said. "It's not \$1.80 a gallon. It's how much does a war in Iraq cost? How much does the fact you've got 75 years of this stuff left on the planet cost? And then what's the cost of pollution? At some point, the industry has to recognize it."

Last year, Toyota sold more than 20,000 of its Prius subcompacts, making Prius, which gets about 40 miles per gallon, the best-selling hybrid in the United States.

With a base price of \$20,500, a Prius costs about \$5,000 more than a Toyota Corolla. That is a considerable gap, though Prius buyers can take a \$2,000 income tax deduction. Toyota says it now makes some profit on each Prius it sells, if the research-and-development costs are not factored in, but the company will not say how much less profitable hybrids are than its conventional vehicles.

Tuesday January 28, 2003

Toyota executives insist that the cost differential can be brought down significantly. For example, Mr. Press said the electric motor in a sport utility vehicle could be configured to power the rear wheels, eliminating the need for, and cost of, a conventional four-wheel-drive system.

In addition, Congress has considered adding more tax benefits for buyers.

Rick Wagoner, G.M.'s chief executive, said such incentives, which could quickly accumulate into a considerable government subsidy, are critical to the future of hybrids, because G.M. does not intend to sell its hybrids at a loss.

"For this to go, it's a team sport," he said. "We're going to need the government in."

G.M.'s hybrid plans were promoted in full-page newspaper ads and greeted as something of a road-to-Damascus conversion. A Sierra Club statement likened the announcement to "Nixon going to China." Nicholas V. Scheele, Ford's chief operating officer, described himself as "baffled," noting that only recently G.M. had dismissed hybrids as too costly.

Lawrence D. Burns, G.M.'s vice president for research and development, attributed the change of heart to the early success of Toyota and Honda and "the uncertain future in 2005 and beyond with regulatory requirements and gasoline prices."

Robert A. Lutz, G.M.'s vice chairman for North American operations, was more blunt. "You just can't fly in the face of public opinion," he told The Detroit News. "It would be self-defeating to constantly say to ourselves, 'It's not gonna work, it's not gonna work.'"

Since the days of Thomas A. Edison, the auto industry has been trying to make a credible alternative to the internal combustion engine. Edison himself was a pioneer of the battery-powered car, though he is said to have told a young Henry Ford that his idea for a gasoline engine sounded pretty good.

The first car bought by the government, during Theodore Roosevelt's administration, was a Stanley Steamer, a steam-powered car. In the 1950's, Chrysler was so sure that cars powered by jet engines would be the future that it built a small fleet of them. Today, the industry is convinced that future generations of automobiles will be propelled by hydrogen fuel cells, which generate electricity through a chemical reaction.

If debate continues on hybrids, some clarity is emerging on other alternative technologies. The future seems notably dim for battery powered cars, whose batteries do not last very long and take hours to recharge.

"At the moment I think it's being put to rest," said Fujio Cho, the president of Toyota, adding that his company is "hardly selling any."

Carlos Ghosn, chief executive of [Nissan](#), agreed that battery-powered cars are "completely obsolete," though Nissan continues to lease battery-powered Altra station wagons to California utilities.

Then there is the fuel cell, for environmentalists and even many auto executives the nonpolluting ideal of alternative fuel technologies. Not only did fuel cells power the inside of lunar landers, they emitted water for astronauts to drink. But will they soon supplant the internal combustion engine?

Tuesday January 28, 2003

"Today a fuel cell car probably costs about — I'm going to be optimistic — \$700,000," Mr. Ghosn said. "We're far from sticker price, eh? We're going to have to get it down to \$20,000, \$30,000."

U.S. Wind Industry Turns in Another Solid Year of Growth

Transmission & Distribution World - *January 24, 2003*

The U.S. wind energy industry racked up a solid gain in 2002 even in the face of an overall retrenchment in the broader energy industry, stated the Washington, D.C.-based American Wind Energy Association (AWEA).

AWEA said total installed wind electric generating capacity expanded by nearly 10% during the year, with 410 megawatts (MW) of new equipment going into service (enough to meet the annual needs of approximately 120,000 average American homes). At year's end, it said, wind plants in 27 states across the country totaled 4,685 MW, enough to serve more than 1.3 million households.

Although the new additions made 2002 the fourth best year of all time, AWEA executive director Randall Swisher said, the total was down sharply from 2001, when a record 1,696 MW were installed. The lower total, he said, "underlines the vital importance of having a stable energy policy environment in which a new industry can grow in a healthy fashion."

Central to the industry's agenda in 2003, Swisher said, will be a proposed multi-year extension of the existing federal wind energy production tax credit (PTC), which is currently scheduled to expire Dec. 31, 2003: "Congress has allowed the PTC to expire twice before renewing it -- in 1999 and 2001 -- and each time the impact on our industry has been devastating."

An extension of the credit was included in both the House and Senate versions of last year's energy bill, which died when Congress could not reach final agreement before adjourning in December.

Highlights of the year's wind energy development, according to AWEA, included: The world's second-largest wind farm, the 263-MW Stateline project on the border between the states of Washington and Oregon, became the largest with the addition of another 37 MW, pushing it to 300 MW and surpassing the 278-MW King Mountain Wind Ranch in Texas. Both projects are owned by FPL Energy, a subsidiary of FPL Group and the nation's largest wind energy producer. The Stateline project uses 660-kW (kilowatt) Vestas turbines and generates enough electricity annually to serve approximately 70,000 homes. The first utility-scale wind project in West Virginia, the 66-MW Mountaineer Wind Energy Center on Backbone Mountain, went into service. The wind farm, developed by FPL Energy, consists of 44 1,500-kW (1.5-MW) NEG Micon turbines, and is the largest east of the Mississippi. Iowa, which ranks third nationally with 423 MW behind California (1822 MW) and Texas (1095 MW) in wind development, gained another large project, the 98-MW Hancock County Wind Energy Center. The project was developed by FPL Energy and uses 148 Vestas V47-600 kW turbines. A growing "green power" market in the eastern U.S., underlined by announcements by several universities of purchases of wind-generated electricity. Catholic University of America in Washington, D.C., topped the list in percentage terms, agreeing to buy wind power for 12% of its electricity needs.

Wind power's outlook for 2003 is clouded somewhat by an overall buildup of debt in the electric utility industry that has created financial problems expected to last well into 2004, AWEA said. The utility industry over-expanded in recent years, and financial investment in the sector has nose-dived.

Tuesday January 28, 2003

"With the strong possibility of military action in the Middle East, we expect to see more turbulence in the energy market in the year ahead," Swisher said. "Extension of the PTC is urgently needed to provide planning stability for the growing number of companies -- manufacturers, project developers, generating companies, and investors -- in our industry."

AWEA had previously projected a record year with more than 2,000 MW in 2003, but given the growing market uncertainty, has scaled its forecast back to a range of 1,500 to 1,800 MW, Swisher said.

A state-by-state map of wind energy projects is available on AWEA's Web site at <http://www.awea.org/projects/index.html>.