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Alternative Energy Suddenly Faces Headwinds

By CLIFFORD KRAUSS

HOUSTON — For all the support that the presidential candidates are expressing for renewable energy, alternative energies like wind and solar are facing big new challenges because of the credit freeze and the plunge in oil and natural gas prices.

Shares of alternative energy companies have fallen even more sharply than the rest of the stock market in recent months. The struggles of financial institutions are raising fears that investment capital for big renewable energy projects is likely to get tighter.

Advocates are concerned that if the prices for oil and gas keep falling, the incentive for utilities and consumers to buy expensive renewable energy will shrink. That is what happened in the 1980s when a decade of advances for alternative energy collapsed amid falling prices for conventional fuels.

“Everyone is in shock about what the new world is going to be,” said V. John White, executive director of the Center for Energy Efficiency and Renewable Technology, a California advocacy group. “Surely, renewable energy projects and new technologies are at risk because of their capital intensity.”

Senator Barack Obama and Senator John McCain both promise ambitious programs to develop various kinds of alternative energy to combat global warming and achieve energy independence.

Mr. Obama talks of creating five million new jobs in renewable energy and nearly tripling the percentage of the nation’s electricity supplied by renewables by 2025. Mr. McCain has run television advertisements showing wind turbines and has pledged to make the United States the “leader in a new international green economy.”

But after years of rapid growth, the sudden headwinds facing renewables point to slowing momentum and greater dependence on government subsidies, mandates and research financing, at a time when Washington is overloaded with economic problems.

John Woolard, chief executive officer of BrightSource Energy, a solar company, said he believed the long-term future for renewables remained promising, though “right now we are looking at tumultuous and unpredictable capital markets.”

Venture capital financing for some advanced solar projects and for experimental biofuels, like ethanol made from plant wastes, is drying up, according to analysts who track investment flows.

At least two wind energy companies have had to delay projects in recent days because of trouble raising capital. Several corn ethanol projects have been delayed for lack of financing in Iowa and Oklahoma since last month, and one plant operator in Ohio filed for bankruptcy protection last week.

Tesla Motors, the maker of battery-powered cars, recently announced it had been forced to delay production of its all-electric Model S sedan, close two offices and lay off workers.

Investment analysts say initial and secondary stock offerings by clean energy companies across global markets have slowed to a crawl since the spring, and for the full year could total less than half of the record $25.4 billion for 2007.

Worldwide project financings for new construction of wind, solar, biofuels and other alternative energy projects this year fell to $17.8 billion in the third quarter, from $23.2 billion in the second quarter, according to New Energy Finance, a research firm in London. The slide is expected to be sharper in the fourth quarter and next year.

In the United States, financing for new projects and venture capital and private equity investments in renewable energy this year might still top last year's results because so much money was in the pipeline at the beginning of the year, but the pace has slowed sharply in the last month.

The next presidential administration, to make good on campaign rhetoric and continue supporting renewables, will have to choose alternative energy over other programs at a time of ballooning deficits. Analysts say that is no sure thing.

"Government funding for renewables is now going to have to compete with levels of government funding in other areas that were unimaginable six months ago," Mark Flannery, an energy analyst for Credit Suisse, said.

The central questions facing renewables now, experts say, are how long credit will be tight and how low oil and natural gas prices will fall. Oil and gas are still relatively expensive by historical standards, but the prices have fallen by half since July. Some economists expect further declines as the economy weakens.

Wall Street analysts say most utilities and other builders can profitably choose big wind projects over gas-fired plants only when gas prices are $8 per thousand cubic feet or higher. Natural gas settled Monday at about $6.79 per thousand cubic feet, down from about $13.58 on July 3.

"Natural gas at $6 makes wind look like a questionable idea and solar power unfathomably expensive," said Kevin Book, a senior vice president at FBR Capital Markets.

Government mandates already on the books, including state rules requiring renewable power generation and federal requirements for production of ethanol, ensure that to some degree, alternative energy markets will continue to exist no matter how low oil and gas prices go. But the credit crisis means some companies that would like to build facilities to meet that demand are going to have problems. "If you can't borrow money, you can't develop renewables," Mr. Book said.

Renewable energy now meets 7 percent of the nation's energy needs, and public subsidies have promoted a leap for several alternative energy sources in recent years.

Ethanol is sold nationwide as a gasoline additive, and federal legislation aims to replace a major share of the oil now imported into the United States with domestically produced biofuels in the next 15 years. Enough new wind power was installed in the United States to serve the equivalent of 4.5 million households in 2007, the third year in a row the country led all nations in new wind power.

Renewable energy has become a big business worldwide, with total investment increasing to $148.4 billion last year, from $33.4 billion in 2004, according to Ethan Zindler, head of North American research at New Energy Finance. Mr. Zindler said the upward momentum had halted, and that total investment this year was likely to be lower than last.

In the 1970s, just as in recent years, high prices for fossil fuels led to rising interest in renewables. But when oil prices collapsed in the 1980s, the nascent market for renewable energy fell apart, too. Congress eliminated tax credits for solar energy, ethanol could not compete with cheap gasoline and a wind farm boomlet in California failed to catch on in the rest of the country.

The epicenter of investment and development moved to Europe, with its strong government support for renewables, and began shifting back only when heating oil and natural gas prices shot up again in recent years.

There are some differences this time. Coal, another major competitor of renewables, remains expensive and is facing increasing scrutiny over environmental concerns.

Most important, renewable energy entrepreneurs and experts say, is the growing government and public backing for renewable energy in the United States.

“What is driving the market this time is that we’re at war and this is a security issue,” said Arnold R. Klann, chief executive of BlueFire Ethanol, a California company that is planning to make ethanol out of garbage with the help of $40 million in financing from the Energy Department.

In its recent financial rescue package, Congress provided $17 billion in tax credits to promote various forms of clean power, for everything from plug-in electric vehicles to projects that will capture and store carbon dioxide from coal-burning power plants. Production and investment tax credits were extended for wind energy for one year, geothermal energy for two years and for solar energy for a full eight years.

Meanwhile more than 30 states have enacted standards demanding that utilities generate a minimum proportion — typically 10 to 20 percent — of their power from renewable sources in the next 5 to 10 years.

But some analysts say the government supports may not be enough to propel continued growth for renewables, noting that several states have already relaxed their goals.

“When they can’t meet their targets,” Mr. Book said, “they change them.”