

This copy is for your personal, noncommercial use only. You can order presentation-ready copies for distribution to your colleagues, clients or customers [here](#) or use the "Reprints" tool that appears next to any article. Visit [www.nytreprints.com](http://www.nytreprints.com) for samples and additional information. [Order a reprint of this article now.](#)



March 21, 2011

# Natural Gas Now Viewed as Safer Bet

By **JAD MOUAWAD**

Natural gas may be having its day, as its rival energy sources come under a cloud.

The serious problems at the nuclear power plant in Japan have raised new doubts about the safety of **nuclear energy**. New exploration has yet to resume in the Gulf of Mexico after last year's blowout of a **BP oil** well. And **coal** plants have been under a shadow because of their contribution to **global warming**.

Meanwhile, **natural gas** has overcome two of its biggest hurdles — volatile prices and questionable supplies. In large part because of new discoveries in the United States and abroad that have significantly increased known reserves, natural gas prices have been relatively low in the last two years.

It is far too early to say for sure whether the calamitous events in Japan may roll back the global nuclear revival and lead to a surge in natural gas demand. It is also too early to say whether officials in charge of nuclear policy are just paying lip service to the public's safety concerns in the wake of the unfolding disaster.

Still, with the global demand for energy expected to grow by double digits in coming decades, analysts are anticipating a new boom in gas consumption. Given the growing concerns about nuclear power and the constraints on carbon emissions, one bank, Société Générale, called natural gas the fuel of "no choice."

"At the end of the day, when you look at the risk-reward equation, natural gas comes out as a winner," said Lawrence J. Goldstein, an economist at the Energy Policy Research Foundation. "It's a technical knockout."

Financial markets have already started to price in this new interest in gas. Since the disaster in Japan, uranium prices have dropped by 30 percent, while natural gas prices in Europe and the United States have risen by about 10 percent. Officials from several countries, including China, Germany, Finland and South Africa, said they would review their nuclear strategies.

Utilities are also reconsidering natural gas as a potential source of stable power, a function

historically filled by coal and nuclear energy. Utility chiefs have been wary of price fluctuations of natural gas, particularly in the last two decades.

But that may be about to change, according to John Rowe, chairman of [Exelon](#), the biggest nuclear utility in the United States. He argued that building a nuclear power plant would be prohibitively expensive, while new rules limiting carbon emissions by the [Environmental Protection Agency](#) would require costly investments to scrub emissions from coal-powered plants. This means that utilities will increasingly switch to natural gas.

“Natural gas is queen,” Mr. Rowe told a panel at the [American Enterprise Institute](#) in Washington this month.

That view was endorsed by a report to be released on Tuesday by the [Bipartisan Policy Center](#) and the [American Clean Skies Foundation](#), which predicts that natural gas consumption will increase because of an abundance of new supplies, some of them in the United States, that are likely to keep prices relatively low.

Global natural gas production rose by 44 percent in the two decades from 1990 and 2010, while gas reserves grew by 67 percent. After peaking at \$13.58 per thousand cubic feet in 2008, gas prices in the United States averaged \$4.38 last year. What is more, natural gas emits about half as much carbon dioxide as coal when it is burned to produce one kilowatt hour of electricity.

The immediate market for natural gas will likely be Japan, which is looking to raise its fuel imports after a fifth of its nuclear power capacity was shut down, including the troubled Fukushima Daiichi plant. And Tokyo Electric Power says that the rolling blackouts in the country will continue at least into next winter.

Japan already imports a third of global liquefied natural gas shipments and its import terminals, mostly in the south, were not damaged by the earthquake. Nuclear power and coal each accounts for a quarter of Japan’s power generation, while natural gas accounts for 30 percent, according to analysts with the Raymond James financial company.

“It could be that the Honshu earthquake is the catalyst which fundamentally reshapes our approach to global energy,” Bernstein Research analysts wrote last week.

Many oil companies have anticipated this shift. At [Royal Dutch Shell](#), natural gas production overtook its oil output in recent years. [Exxon Mobil](#) bought XTO Energy last year to raise its presence in the growing domestic shale gas market. It has also developed significant resources in Qatar, which holds the third-largest reserves of natural gas in the world, after Russia and Iran.

Huge new projects dedicated to liquefied natural gas — in which gas is frozen, compressed in liquid form for easier shipment, then returned to a gas state at import terminals — have been mushrooming around the world.

In Papua-New Guinea, [Exxon](#) is leading a \$15 billion project to build and develop an LNG plant to supply Asian customers. [Chevron](#) recently began engineering work on the \$40 billion Gorgon gas project in Australia, along with Shell and Exxon. Russia, for its part, is planning to develop huge new fields in the Arctic.

Natural gas is not without problems. To unlock methane from hard shale rocks in the United States, energy companies use hydraulic fracturing, a method that has been criticized on the grounds of polluting water sources, including rivers and underground aquifers.

But energy policy must balance out these hazards with the concerns about nuclear power, as well as the still unresolved problem of what to do with spent nuclear fuel that remains radioactive for hundreds of years.

“Nuclear power has suddenly found itself going from being (arguably) part of the solution for future green energy to a now dangerous relic of the cold war era,” [Deutsche Bank](#) said in a report last week.

In the United States, where no new reactor has been built since the Three Mile Island accident in 1979, the attitude toward nuclear power has been ambivalent. Last year, the president asked the Energy Department to provide some financial backing for nuclear operations, including two reactors planned for Georgia.

But in the aftermath of the Japanese disaster, the administration ordered a comprehensive review of safety at nuclear plants.

At the same time, the industry has found it nearly impossible to develop and finance new plants. In December, for example, Exelon dropped its application to build a plant in Victoria County, Tex., in the face of opposition.

Utilities have also faced a challenge in renewing their existing operating licenses. The Pilgrim Nuclear Power Station, in Plymouth, Mass., has been waiting for a new license for five years because of litigation and court delays. State officials in Vermont have been battling to shut down [Entergy's](#) Vermont Yankee plant, which began operations in 1972.

There are 104 nuclear reactors in the United States, which contribute 23 percent of the nation's electrical power. Twenty reactors have applications pending with federal regulators to extend the plants' operating lives by as much as two decades, according to Bloomberg News.

“We are likely to do to nuclear licensing what we did to offshore permitting,” Mr. Goldstein, of the energy policy foundation, said. “We will delay and stall.”

*David Jolly contributed reporting.*