



EYE ON ENERGY

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NO RESPECT!

MUCH-MALIGNED NATURAL GAS FINALLY GETS SOME RESPECT.

“I don’t get no respect” was the shtick that made the career of American actor/comedian Rodney Dangerfield. Natural gas, disrespected since its heyday in the early 2000s when the shale revolution commenced, turning gas shortages into surpluses and driving prices to modern lows, may be gaining new respect.

For the past six years, other than in late 2018, domestic gas prices failed to exceed \$4 per thousand cubic feet until now, a price level ensuring E&P company profitability while not choking off demand. Does respect come with price?

Recently, Henry Hub gas prices soared above \$5 per thousand cubic feet due to supply/demand concerns. The last time gas prices were in such rarified air was February 2014, when a late winter cold blast boosted heating demand. The price spike marked a rare tight supply/demand balance for gas as the shale boom kept the market well-supplied.

In fact, physical shortages became history and kicked off the U.S. LNG boom, which reshaped the global gas market. Nonetheless, natural gas was dismissed as unprofitable because of the supply glut.

This new respect for natural gas is

spreading worldwide, reflecting the fuel’s growing role in meeting global power needs. There was a time when climate activists proclaimed natural gas as the “bridge fuel” to a clean energy future. That title was rejected as activists recognized that natural gas was a fossil fuel, albeit less polluting than either coal or oil, and unacceptable in a renewables-only energy mix.

This ignored the dramatic gains in reducing emissions that cheap natural gas was delivering in the U.S. by shifting the electricity generating fuel mix from dirty coal to cleaner gas. That same fuel substitution began occurring around the world, contributing to a cleaner atmosphere.

HIGH PRICES & SUPPLY SHORTAGES

High U.S. natural gas prices are being mirrored in Europe and Asia, which are experiencing the same supply shortages that

are driving up U.S. prices. The U.S. struggled this summer rebuilding its gas storage for the upcoming 2021-22 winter season. Weekly gas storage volumes trail those of last year with volumes currently seven percent below the five-year average and only a few weeks remaining in the injection season.

This suggests the U.S. gas market is at risk of a price explosion should the upcoming winter be colder than expected.

In Europe, last winter was colder than normal, so gas storage was drawn down to low levels. Just as in the U.S., Europe needs high prices to attract gas for storage and curtail consumption. The latter prospect has been hurt by the poor performance of renewable power – primarily wind power – throughout Europe this year. Low wind speeds reduced the amount of renewable electricity generated, forcing European utilities to rely on backup power supplies to meet demand.

The shock for climate activists wanting to keep the lights on and factories humming was it meant restarting recently retired coal-fired power plants and using more natural gas.

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In the U.K., the shortage of wind power caused similar responses as on the continent – restarting coal-fired power plants and increased natural gas use. The result is soaring gas prices, which is harming economic activity. The most high-profile event was the closing of two fertilizer plants due to their raw material – natural gas – being too expensive. This was a blow to the commercial carbon dioxide market, which supplies the nation's food industry. Without relief, food companies were within days of having to reduce or shutter operations. Cheaper natural gas needed to be found, or carbon dioxide from elsewhere had to be imported.

The solution adopted will influence how high gas prices rise and their economic impact. U.K. consumers will soon feel the impact of high gas prices in their food budgets and their electricity bills. Ofgem, the U.K.

utility regulator has just approved a 20 percent increase in residential electricity bills!

Other dominos about to fall are bankruptcies of U.K. retail power companies who face annual bills for gas supply that are 25 percent greater than what they are legally allowed to collect from customers. Customers could become wards of the government, which will disrupt both the U.K. economy and the energy market.

REPLACING COAL

Besides offsetting disappointing renewable power, natural gas increasingly is replacing dirty coal. Utilizing BP statistics, coal provided 35 percent of 2020's global electricity generation, down from 40 percent a decade earlier. Natural gas's share has grown to 23 percent.

Geographically, these fuel market shares

differ dramatically. In 2020, coal dominated the Asia/Pacific region with a 57 percent share compared to only 15 and 21 percent, respectively, in Europe and the U.S. By contrast, natural gas dominated U.S. power generation with a 46 percent share compared to 20 and 11 percent for Europe and Asia, respectively.

These different fuel market shares reflect their relative geographic abundance and economics as well as government policies toward clean energy. The greater use of natural gas for powering grids in Europe and the U.S. has contributed to reduced carbon emissions. But those gains face challenges from the failure of renewables and having to restart coal- and natural gas-fired plants to replace renewable power. Still, there remains a huge opportunity for gas to displace coal globally.

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Unsurprisingly, as global crude oil prices recently retreated, reports began circulating of Asian LNG buyers approaching their long-term suppliers seeking increased shipments under those contracts. The negotiations recognized that oil-linked LNG prices were cheaper than spot LNG prices. It's unknown whether these suppliers have additional cargos available to sell or whether they might hold back additional supplies to sell in the more lucrative global LNG market. But U.S. LNG shipments are at record levels, capitalizing on huge netback profits.

SOARING LNG PRICES

A measure of the global natural gas market's tightness is the price for LNG cargos. These prices soared this year in both Asia and Europe as they competed to secure supplies for the upcoming winter. Rebounding economic activity in Asia has put pressure on electricity supplies throughout the region. Last winter in Asia was colder than normal, helping to deplete gas storage and forcing aggressive bidding for LNG.

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Traditionally, Europe has been the least-developed LNG market. Although some terminals existed, it wasn't until the last decade that European countries aggressively built new LNG terminals to diversify their gas supplies.

Currently, Europe is heavily dependent on Russian gas, which has potentially put it at risk of political power plays. The completion of the Nord Stream II undersea pipeline directly connecting Russia and Germany will change the continent's natural gas market dynamics. Once the pipeline is certified for operation, Russia will be positioned to supply more gas throughout Europe, making the continent further dependent on it.

Russia potentially may supply as much as 35 percent of the continent's gas needs. Dependence on Russia will grow as Europe's domestic gas supplies decline. Output from North Sea gas fields is falling, and the giant Netherlands Groningen gas field will soon be shuttered to prevent earthquakes. Will European countries become captive to Russia's political wants?

There's a conspiracy theory that Russia is currently withholding gas supplies to Europe to drive up prices and pressure regulators to approve Nord Stream II. Recent data, primarily from gas traders in Europe and the Middle East,

suggests Russia has throttled back deliveries to Europe. Is the Russian president delivering a message about how European energy markets are falling under his control?

In late September, Russia's Gazprom, Europe's primary gas supplier, reported data through mid-September showing its gas shipments outside of the former Soviet Union were 17 percent higher than last year's volumes with Germany's increase twice that rate.

As the U.S. has become an important global gas supplier and more LNG export terminals become operational, developing greater gas supplies will be a challenge. The domestic petroleum industry's financial disasters in recent years forced E&P companies to restrain their spending. This means only modest increases in domestic drilling, despite high prices, as investors clamor for increased returns of capital over production growth.

The current supply crunch that has sent domestic gas prices soaring is likely to continue. Given the ebb and flow of demand in response to economic activity and weather, gas prices will remain volatile. After breaching \$5/Mcf they fell back but have once again risen above \$5, remaining on a razor's edge of going sharply higher depending on the economy and weather. A key variable will be the interplay of gas and coal prices, impacting their use in power generation. Climate policies may alter that free-market battle.

RESPECT, AT LAST!

If crude oil drilling stays subdued, there will be less associated natural gas output, forcing drillers to focus on traditional dry gas resources. Those wells are expensive. High and maybe higher gas prices will be necessary in an era of increased E&P financial discipline to spur drilling. Will producers respond?

The answer to that question will likely not become evident until winter, so watch the weather forecasts. Meanwell, natural gas is playing a greater role in sustaining energy markets and economies, keeping the lights on and cleaning up the atmosphere. That's why natural gas is finally gaining respect.

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