Purchasing Energy in the Northeast

By Jon F. Sorenson

ver the past two years we have seen an abundance of natural gas throughout North America, fueled by the discovery and production of shale gas in the Marcellus Shale in Pennsylvania, reaching down to West Virginia and western Kentucky. Natural gas spiked in the futures markets in 2008-2009, reaching as high as \$14 per MMBtu (one million Btu.)

Today the commodity of natural gas is at approximately \$3.50 per MMBtu in the current listing of the NYMEX futures market, which is up from the lows of April 2012. These low prices have allowed industry, colleges, and universities across North America to enjoy low production and heating fuel prices compared to oil, savings millions of dollars and bringing manufacturing back to the United States.

A TIME OF HIGH DEMAND

However, recently the Northeast, specifically New England, has had some dramatic change in price. New England's primary fuel for electricity generation is natural gas. In fact, upwards of 52 percent of the primary generators plus 87 percent of the units used for peaking during extreme heat and cold, are natural gas-fired. As such, as the price of natural gas goes, so does the price of electricity in New England.

Last winter, with normal temperatures coupled with major storms, ISO-NE (the power grid operator) found that there are not enough



pipeline infrastructures to move natural gas to load zones, as the demand for heating, at the same time of a need for gas-fired electricity, could not be maintained.

This bottle neck in pipeline infrastructure caused an escalation or spike in daily natural gas electricity in the spot or daily market. In addition, for customers trying to make purchases that would hedge or lock natural gas or electricity, the adder above NYMEX, basis pricing also escalated. Basis is one of the adders above the NYMEX future market that is comprised of capacity and transportation to move gas along the pipeline to the local distribution company. The end result was choppy and high spot prices and a substantial increase in hedged prices.

ISO-NE estimated that New Englanders paid an additional \$2.8 billion in extra fees or charges for electricity and natural gas during last year's heating season compared to the rest of North America. Despite these high prices, natural gas and electricity prices on average were still less than the competing fuel of residual or distillate oil.

SOPHISTICATION IN PURCHASING

So how do New England-based colleges and institutions handle this issue? Unlike 10 to 15 years ago, purchasing energy has become quite sophisticated. Natural gas, both on the spot and futures market, trades each and every day

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and needs to be monitored and trends need to be understood and communicated appropriately. Basis, the adder above the NYMEX futures commodity market, also trades and responds daily to weather forecasts, production levels of natural gas in Atlantic Canada and other news that may impact price. Purchasing, facilities, and finance professionals should work with a consultant to assist in determining when it is the right time to purchase electricity or natural gas based on price, trends, risk, budget, and other important factors. Purchasing, facilities, and finance professionals should understand all the salient issues in the market and not make a decision without proper knowledge and defined strategy.

EXPANSIONS HOLD A BRIGHT FUTURE

Is there a light at the end of this tunnel? Yes, there is a bright future for natural gas in New England. Pipeline expansions from the Pennsylvania region connecting to New England have been announced and will be coming to fruition between 2016 and 2018. Production resources in Atlantic Canada are expanding and improving as Deep Panuke is starting to produce natural gas and Sable Island is fixing its faulty infrastructure at the bottom of the ocean.

Combined, natural gas prices will stabilize and provide a bright and inexpensive future for purchasers. However, in the meantime, it will be a bumpy road and prices will remain volatile. We recommend that all purchasers seek help in these complex issues and become educated on how to handle these volatile markets. (5)

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