

Understanding Infinity Insights

You will soon begin to receive “Insights” that discuss what the power market and natural gas price action means to your cost of procurement, what strategy makes the most sense, and what landmines might be out there. Understanding what’s being said, what’s the perspective of the writer, and how the visuals of charts, etc. help interpret and translate this message is fundamental in making this a useful tool in your decision-making process, whether it’s how to move forward with planned procurement or managing procurement already underway. The following is intended as an introduction to make the conversation as common sense and transparent as possible.

Technical analysis is the discipline that guides our decisions. What this means is that the pattern of price action, regardless whether it’s natural gas, heat rates, or real time prices translates the fundamental information that constantly changes and deserves shifts in weighing this factor versus that. It is the belief of this writer that the best basis for procurement of energy is an unemotional analysis of risk vs. reward and some continuing empirical evidence of being right or, more importantly, discovering that something’s amiss and corrective action is required. Charts tell the tale. If one is making an election to defer some part of procurement versus locking in price certain, term certain, then having a map (the charts) to base decisions on is critical.

It is not our intent to transform each of our customers into an expert in the trading of commodities. You are interested in economic procurement of energy, not buying a position to resell in the future. Our intent is to bring sufficient clarity to the discussion for you to make business decisions. You come to the table with a short position, whether you have an existing procurement agreement or not. You have to buy to satisfy that short and the question is how. There are various roadmaps (charts) that we use to translate market action into some strategy that makes sense for the user, client-specific. What may be appropriate and suitable for a large consumer of power 7 days a week, 24 hours a day may not work for a large commercial property that operates with a different usage pattern 5 days a week (perhaps under different budgetary constraints). They both have at



their disposal the same markets, but they may weigh price certainty, appetite for risk, and other factors in different ways.

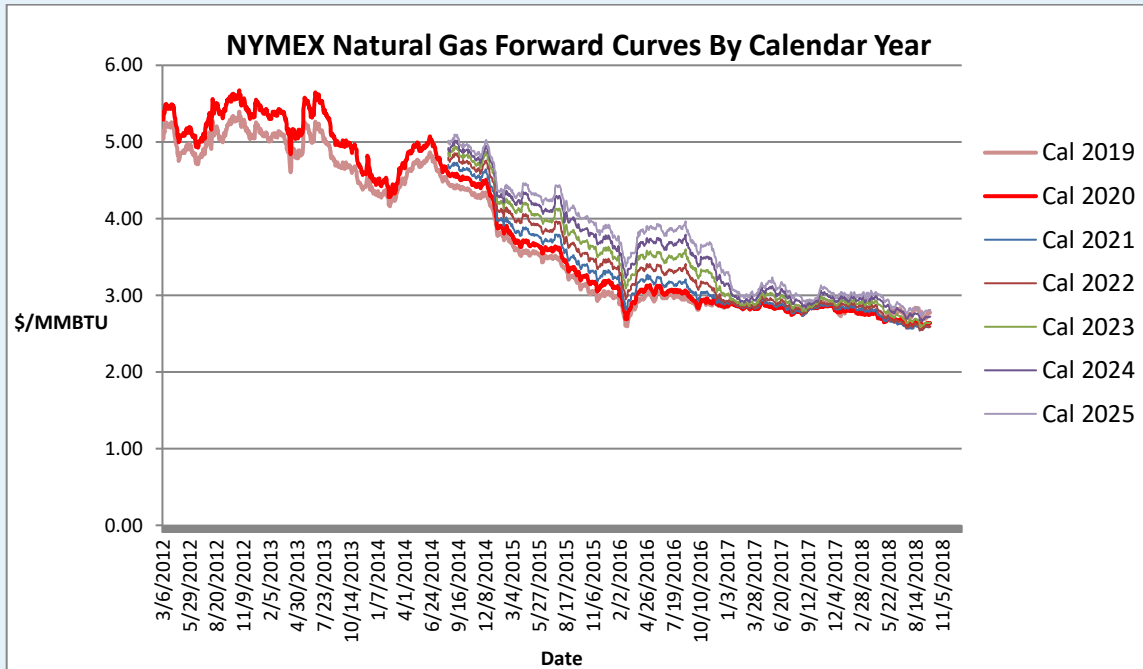
The primary commodity in discussions going forward is natural gas. This is the financial market's default feedstock in determining wholesale prices (and is the fastest-growing fossil fuel used in power generation for a myriad of factors). This translates into cost of energy whether you have a fixed price agreement, a heat rate contract, or lift power via the real time market. Your decisions will be based on the arbitrage of one pricing venue against the alternatives. These decisions will be made on the values of the forward curve of prices, something that is quoted month-to-month and changes its configuration as influences and dynamics dictate, and is quoted for as distant into the future as buyers and sellers deem appropriate. The price pattern of what the Calendar strip for 2013 (the average of all 12 trading months for 2013) is not what it was 3 months ago and will change over the next three months. This is why you study the charts. Should you buy now? Should you wait? Has an assumption made on day 1 (when you entered into a procurement agreement) changed? It's important to note that whether you opted for a fixed price structure or a heat rate structure, they were the same value on day 1. What's the important question is how have they diverged on day 200? 300?

The help of charts to determine where the market has been, where it currently is, and where it might be going is the objective and we offer the following examples and brief explanations to bring this introduction full circle:

- **Natural Gas**

NYMEX natural gas prices are by far and away the largest influence of pricing, whether it's power procurement or gas to the burner tip. This being the case, the decision of when to concede or when to avoid concession of the proffered values will impact your cost of procurement and is the focal point of your procurement efforts. Looking at a picture of current price action, below, we as technicians can say that there's compelling price action to warrant locking in at least some of these values.

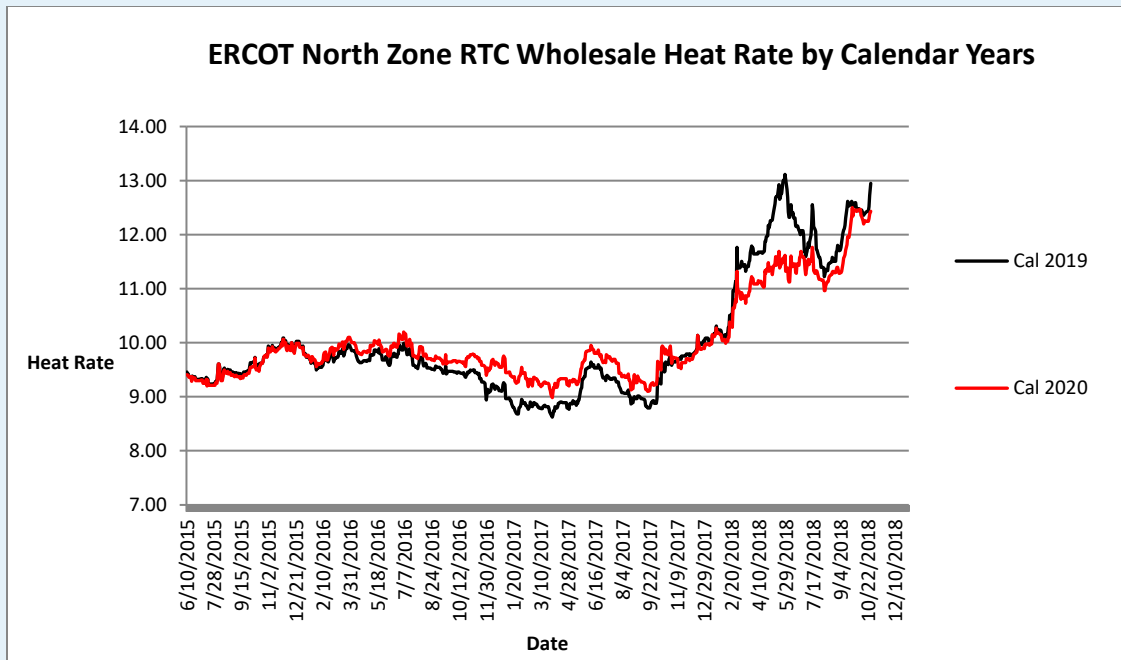




- **Heat Rates**

The formula for wholesale power price is Price of Natural Gas X Heat Rate. Wholesale power is the largest component of energy pricing. The initial definition of heat rate was an engineering function, i.e., how efficiently a generator converted feedstock into power. A natural gas generator would have a lower heat rate than a coal generator as it more efficiently converted a unit of energy. In the energy markets, this has morphed into a financial function as heat rates reflect the cost of feedstock. Heat rates were often considered a benign piece of energy pricing in that they didn't move much. The following chart illustrates that this can no longer be said.

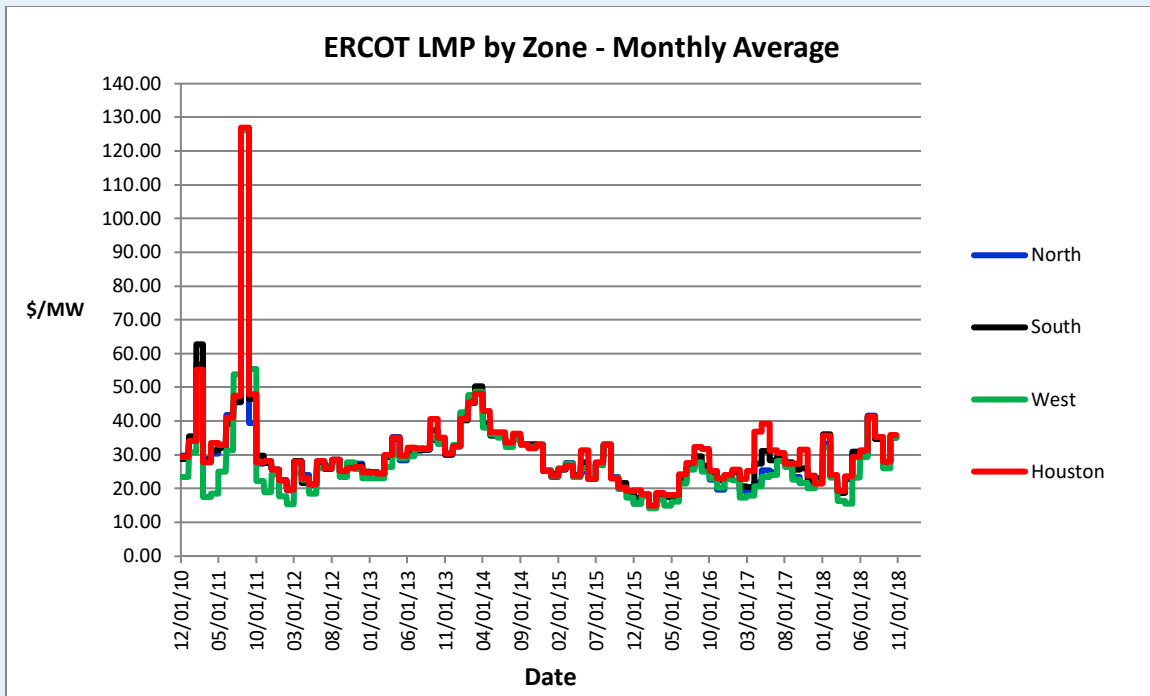




- **Real Time Market**

The real time market is the price that power can be purchased off the grid as used in 15 minute intervals. In ERCOT, as in other jurisdictions, the term for nodal- delivered real time power is LMP (Locational Marginal Price). Prior to December 2010, under zonal delivery, it was referred to as MCPE (Marginal Clearing Price for Energy). It is historically the least expensive procurement price but carries the open-ended risk of price spikes. One painful month of ugly (take, for example, August 2011) can often change the perception of what is rationally a good venue for procurement. There is no forward curve for these prices so any consideration of this venue requires an assumption (guess) as to what are reasonable expectations. The foundation for estimating price direction is history as the chart, below, provides.





We'll end this introduction here. Our intent is to provide some basis for how we look at the markets and what we use to make decisions. Your input is always appreciated.

