

# Amber NEWS

ELECTRIC MARKET NEWS & TRENDS

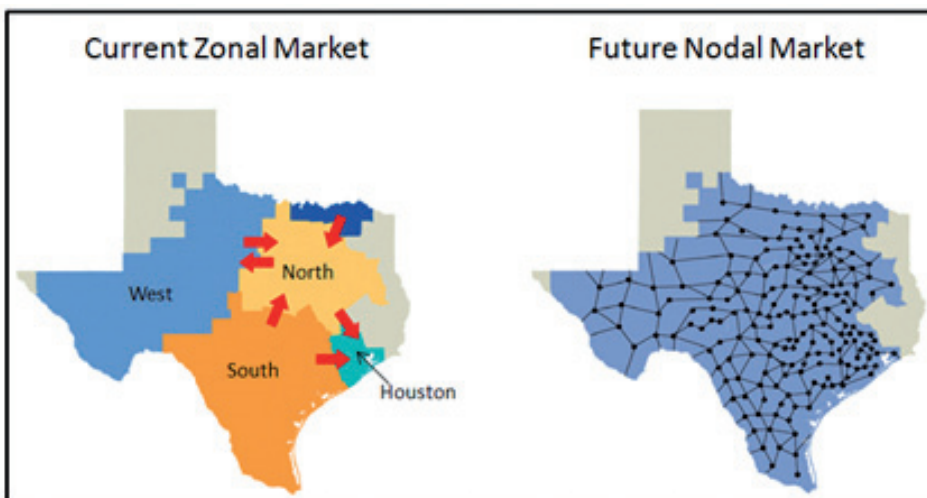
## Texas Is Going NODAL!

Important changes are coming to the Texas wholesale electricity pricing model. Four years after Texas deregulation was signed into law in 1999, there was a realization that the wholesale pricing model was sending the wrong price signals to the market, thus creating inefficiencies in the way power was procured, scheduled and dispatched. In September of 2003 the Public Utility Commission (PUC) ordered the Electric Reliability Council of Texas (ERCOT) to change the pricing model from its current zonal design to a Nodal Market. This order came after the PUC did a study that estimated a cost benefit of over \$5.6 billion over the next 10 years after implementation. After several years of delays and costs that have escalated from an estimated \$300 million to over \$644 million, the market will go live **starting on December 1,**

**2010.** While this news may seem as exciting as watching the proverbial paint dry, understanding this new Nodal Market pricing is important as there is potential for adverse effects to your electricity costs.

### Current Design Flaws

Our current system is called a zonal system with four named zones: North, South, West and Houston. In the zonal system, costs associated with managing congestion or traffic on the grid is allocated to the retailers in a straight average costs determination. The effect is the costs are socialized across the whole zone. Early into deregulation, it was determined that this did not provide incentives for generators to put their plants in high traffic areas. Thus, resources are not allocated in an efficient **see NODAL Page 2**



The Texas market will have over 8,600 nodes.



### INSIDE THIS ISSUE

Texas Is Going NODAL!

TEPA Conference

GDP Market Update

Save the Date  
Crest Expo



### Why "Amber" News?

The Greek word for Amber is "electron" and the Latin term for Like Amber is "electricus", which is where the English word for electricity is derived.

# TEXAS IS GOING NODAL!

Continued from Page 1

manner which leads to more congestion on the electric grid. The second major issue with the current grid structure is the way balancing energy is handled. The balancing market for Qualified Scheduling Entities or QSEs, the guys who schedule power for the retail electric providers, is called the market clearing price of energy or MCPE. This wholesale market is based on real time trading whereby energy is traded to balance the market on 15 minute intervals. ERCOT wants a system that has more trading thus providing better price signals and more security and procuring needed power.

## Nodal Market Design Changes

To handle congestion, the new system will add a new layer of weighted average prices around 8,600 nodes. This should have the effect of higher trading prices for areas that are highly congested such as urban areas like Dallas-Ft. Worth. Thus, generators will look for ways to place their generation near these high price nodes to take advantage of the higher payouts for congestion management. Second, the Nodal market will add a Day Ahead Market (DAM) and a tool called Reliability Unit Commitment (RUC) to strengthen the balancing market. Day Ahead trading will allow an extra tool along with the real time trading to help balance the market and create better reliability. RUC will give ERCOT an added way to put pressure on the retailer's wholesale traders to make sure they are more accurate with their scheduling of power.

Today's Zonal	Tomorrow's Nodal
Transmission Congestion Rights (TCR)	Congestion Revenue Rights (CRR)
Day-ahead market for ancillary services procured for capacity	Day-ahead energy and ancillary services co-optimized market (DAM)
No day-ahead energy market	
Replacement reserve service (RPRS) and out-of merit capacity (OOMC)	Day-ahead reliability unit commitment (DRUC)
Hour-ahead studies	Hourly reliability unit commitment (HRUC)
Portfolio-based offers by zone	Resource-specific offers
Balancing energy service (BES) every 15 minutes	Security constrained economic dispatch (SCED) generally every five minutes (still 15-minute settlement)
Zonal congestion management by portfolio for CSCs	All congestion management will be resource-specific
Resource-specific for local congestion	Enhanced load frequency control
Zonal average shift factors for resources	Actual shift factors for resources
Zonal market clearing prices for balancing energy for generation and loads	Nodal locational marginal pricing (LMP) for generation
	Zonal weighted LMP for loads

RUC will pay out generators for their costs to have stand-by generators ready to provide their power to the grid as needed in reliability situations. Although we have similar services in today's market the new system will come with a set of costs that will penalize schedulers who schedule too much power across their portfolio. In other words, retailers will bear extra costs for poor forecasting of load by their QSEs.

## Customer Impact

What does this mean for your electrical costs? The answer varies depending on whether you have a fixed or index product. Fixed clients could see extra

charges on their bill if retailers aren't able to manage their congestion risks to a certain node on the grid, since they were previously able to spread the risk over a large zone. Thus, the increase or decrease with the new system is unknown and will be passed to the client if there is an increase. RUC costs could be passed along as well. For index clients, the choice of real-time market vs. day-ahead market will have to be considered. Currently the day-ahead market is unknown, so determining the difference in pricing from day-ahead to the real-time will be critical in deciding which product to choose.



## RPM TO ATTEND TEPA CONFERENCE

JD Dodson, RPM Partner and Texas Energy Professionals Association (TEPA) President will host the 2010 Annual Fall Conference in Houston November 11, 2010. The conference will feature Dr. Ray Perryman, key note speaker and noted Texas economist, and host over 200 of the industry's top executives, policy makers and corporate representatives. The conference will deliver the latest industry news, policies and developments in the Texas energy market. RPM is proud to be a part of this important event. Visit [www.TEPATexas.org](http://www.TEPATexas.org) for more information.

## SAVE THE DATE

**CREST Expo**  
**March 31, 2011**  
**11AM - 7PM**  
**Irving Conventional Center**  
**500 West Las Colinas Blvd.**  
**Irving, TX 75039**

CREST Expo is the first Cross-Sector Commercial Real Estate show gathering office and medical building owners and managers, industrial and educational professionals, and corporate real estate professional to name a few. To learn more visit [www.crestexpo.com](http://www.crestexpo.com) and to register to attend the show.

Rapid Power Management will be an exhibitor at the show, so please visit us at booth #522!

## GDP MARKET UPDATE

WTI oil prices averaged \$75 per barrel in September but rose above \$80 at the end of the month and into early October. EIA has raised the average fourth-quarter 2010 forecasted WTI spot price to \$79 per barrel. WTI spot prices are projected to rise to \$85 per barrel by the end of 2011.

WTI futures for December 2010 delivery averaged \$83 per barrel, and implied volatility averaged 30 percent per annum. This made the lower and upper limits of the 95-percent confidence interval \$68 per barrel and \$101 per barrel, respectively.

Projected natural gas inventories reach more than 3.7 trillion cubic feet (Tcf) at the end of this year's injection season (October 31). This projected volume will represent the second highest underground storage level on record for the month of October.

The natural gas futures 12-month strip had a low just under \$4.32 in late September and a high of \$5.2 in early July. Currently, the August 2010 contract is priced at \$4.175 per MMBtu.

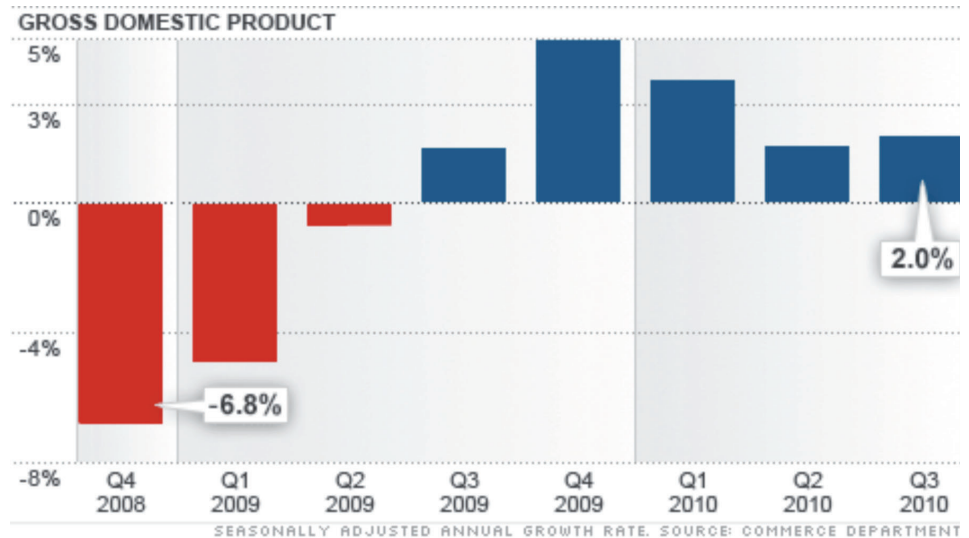
The projected Henry Hub annual average spot price increases from \$3.95

per million Btu (MMBtu) in 2009 to \$4.47 in 2010 and \$4.58 in 2011.

The GDP increased at an annual rate of 2.0 percent in the third quarter 2010 (from second quarter to third quarter), after a real GDP increase of 1.7 percent in the second quarter.

The increase in real GDP in the third quarter primarily reflected positive contributions from personal consumption expenditures (PCE), private inventory investment, nonresidential fixed investment, federal government spending, and exports that were partly offset by a negative contribution from residential fixed investment. Imports, which are a subtraction in the calculation of GDP, increased. Consumer spending rose at a 2.6 pace, which is the fastest pace since the fourth quarter of 2006.

The small acceleration in real GDP in the third quarter primarily reflected a sharp deceleration in imports and accelerations in private inventory investment and in PCE that were partly offset by a downturn in residential fixed investment and decelerations in nonresidential fixed investment and in exports.



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## TEXAS IS GOING NODAL!

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Continued from Page 2

As your energy consultant, Rapid Power Management will monitor the retailers closely to see how each one will handle Nodal costs. Here is a set of critical questions that should be asked when evaluating retailers moving forward:

- Are you your own QSE? (Retailers that handle their own scheduling will have better transparency to the costs associated with congestion as they will work directly with ERCOT)
- What Nodal related charges will you be passing through and do you plan on issuing credit where applicable? (Some retailers might keep the benefits but pass along the costs.)
- If you aren't passing through the Nodal related charges, what are you charging for the premiums for each Nodal risk, in particular RUC and Hub to Zone? (Even if a retailer isn't passing through the charges they can always evoke the Change of Law provision in their contract if their premiums are off.)
- With regard to wholesale trading, do you plan on using the Day-Ahead market for all your volume transactions? (Retailers that move to the Day-Ahead are expected to be able to handle their hedging and scheduling better than the other.)

### Summary

In short, the verdict is out on whether the new design will truly bring about the efficiencies and cost savings promised. This has been a highly charged political football with a vested interest by many in the current state administration. Hopefully end users will see lower prices in the long run due to improved congestion management and better pricing visibility. Starting in the New Year, clients need to review their bills to see how their retailer is handling their costs associated with the new Nodal Market design. As always, the professionals at Rapid Power Management will partner with our customers to understand and manage their energy costs.