THE FRIDAY BURRITO Vol. XVII #38 December 5, 2014
The Gentle Rain from Heaven

"The price of liberty is eternal vigilance and the price of wisdom is eternal thought."

Frank Birch

"An expert is someone who knows some of the worst mistakes that can be made in his subject, and how to avoid them."

Werner Karl Heisenberg

This week's weather was ideal for Burrito writing. It was cold and wet just about everywhere I went, including Lake Tahoe and Las Vegas. I didn't mind burrowing inside my respective abodes with my laptop computer fully engaged in creative writing. I mean that's what this is all about … creative interpretations on the bizarre world of reality. It rained throughout California in a much welcomed way (one exception may have been the flooding I heard about in Sacramento), but if the precipitation forecast for this winter presented at last month's Houston Chapter meeting holds true, then it will be a "normal" weather year. That is, there won't be sufficient rainfall to cure the Western drought that has been evident for the last three years.

Western States Playbook

WPTF Winter General Meeting: Mark your calendar for Thursday and Friday, Feb. 26-27. Grand Del Mar Hotel, Del Mar, Calif. Keynote speakers will be FERC Chair Commissioner Cheryl LaFleur and Montana PSC Commissioner Travis Kavulla. Registration will be opened in late December.

Did you have a pleasant Thanksgiving holiday? We did although it was nothing special. In LA the late November temperatures soared into the high 80s … not at all overcast and gloomy like the year prior. In fact the highlight of the extended break was shopping on Black Friday afternoon and the next day too. You know the kind of old fashioned shopping where you drive to a mall or a store and park the car in a big asphalt lot and walk around the store looking for bargains. There weren't a lot of people in the stores, but all the door-buster deals offered late Thursday evening or early Friday morning were long gone, baby. Yet we found some great deals at Best Buy (e.g., a flat-screen TV for my Mom), Macy's, Walgreen's, and TJ Max. Online there were also terrific purchases to be had for things like all-in-one printers. Yes, the U.S. consumer-based economy is lurching ahead at a steady clip unlike the major European economies or Asia where growth has decidedly slowed down.

The U.S. Senate has been busy in the last several weeks attempting to mount an attack on bank trading of commodities with the usual suspects in mind. At first I wondered why this story was hatching now, but upon reflection it became oh so obvious. The outgoing Democratic leadership of the Senate is making a last hurrah hoping to stick it on the new incoming leadership's agenda. If the Republicans slow play it or entirely ignore it, then the Dems will use that as fodder for a future attack, maybe in the next election cycle … something like, "They let the evil doers off easy," so it will be said. But the story hardly had legs. It faded. A Harry Reid special, no doubt.

A couple of interesting articles surfaced since we last spoke. One overly reactionary editorial (and that's me saying it) ran in Investor's Business Daily (IBD), a long-running rag that claimed Google is pulling out of any future renewable energy investments. Can things change this quickly? The editorial states, "Google is literally and figuratively pulling the plug on its investment in renewable energy because the technology doesn't work. Back in 2007 Google commanded star-spangled headlines with its new high-tech venture to go all in on the next big thing in technology: green renewable energy."

Well, maybe attitudes at Google didn't change that quickly after all. I didn't realize they had been investing in green energy for better than seven years. The software giant's banner was RE<C, which stood for renewable energy that is more efficient and cheaper than coal. However, seven years is enough time to make an informed opinion. Per the IBD editorial, "The most remarkable admission from Google is that the technology just doesn't work — at least not now. Two of the lead scientists on the RE<C project, Ross Koningstein and David Fork, both with Stanford, wrote the following devastating critique of the future of green energy in an article posted at IEEE Spectrum: 'At the start of RE<C, we had shared the attitude of many stalwart environmentalists: We felt that with steady improvements to today's renewable energy technologies, our society could stave off catastrophic climate change. We now know that to be a false hope, but that doesn't mean the planet is doomed.'"

What we believe…

1) Competition yields lower electricity rates.
2) Stable and transparent rules and regulations promote private investment.
3) Private investors, rather than utilities, will spend money on new power plants and transmission facilities if they can earn a return that is balanced with the risks.
4) Private sector investment results in lower average prices without risking consumers' money.

The renewable element does have some problems without the aid of substantial subsidies in a world with inexpensive natural gas. Google hoped to power its many domestic data centers with RE, but the plan didn't pan out. So the company position, again according to IBD, is as follows: "The plain truth is that the electric grid, with its mix of renewable and fossil generation, is an extremely useful and important tool for a data center operator, and with current technologies, renewable energy alone is not sufficiently reliable to power a data center." It was a fad. Going once, going twice …

If that was good, then this next one is will be even better. Last Monday the NYT ran a story in its DealBook section that focuses upon mergers and acquisitions entitled, "With Spinoff, German Utility E.On to Focus on Renewable Energy." It's not what you might think at first. E.On is spinning off its thermal and nuclear assets into a separate company because the risk profile for that part of their portfolio has become wildly different compared to the sure deal the utility has with regulated distribution and subsidized renewable energy. "Analysts noted that E.ON was putting its riskier businesses, including nuclear and other conventional power generation as well as oil and gas production, in the new unit while keeping in the main company steady earners such as distribution of power and gas to industrial and retail customers as well as the government-subsidized renewable operations." This is a fascinating development. If Germany portends the future for California, and I think it does, then I can see future spinoff companies for the three IOUs that provide separate returns on the renewable/distribution business from the conventional energy business. The independent generators, however, don't have that luxury. How will they evolve? I struggle with that question.

Back to the NYT, the article explains that, "German utilities like E.On have been squeezed particularly hard by the sweeping transformation in energy use in Germany known as *Energiewende* … E.On and others are struggling to adapt, with some shutting down both nuclear and gas-fired power plants and curtailing their investment budgets. This has created concerns that Europe may face an electricity crisis in the coming years." An electricity crisis in Germany? Oh come on, tell me it can't happen. An electricity crisis in California … do we know any other way?

I reviewed the CAISO's most recent Market Issues and Quarterly Performance report. There were several interesting items in it, but the one I wanted to highlight was the evidence regarding the loss of economic bids in the real-time market (a.k.a., Fifteen Minute Market or FMM) at the interties. "The market experienced a considerable increase in the quantity of self-

Flory's
A Tough Act To Follow

Click here to learn about the author

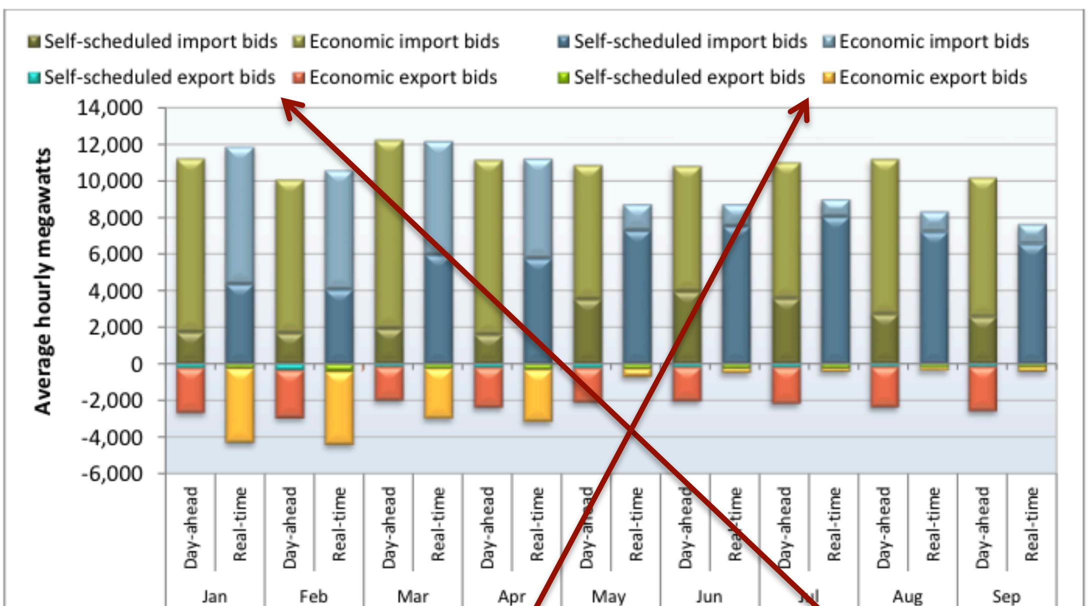
With the slowed pace of Dodd-Frank activities at the CFTC, at least for wholesale power entities, this will be my last submission to the Burrito. The slowed pace reflects both the current CFTC chair's concern about impacts on "commercial users" (entities who mainly trade swaps and futures for hedging price risk) as well as the Republican control of Congress. On the other hand, major retrenchments are not expected either. Reflecting this balance, in November the CFTC proposed an "interpretation" and "refinement" of its rules that forward contracts with "embedded volumetric optionality" (e.g., full requirements supply contracts that must accommodate variations in demand due to weather) are not financial swaps.

Presumably such refinements will reduce contract disputes among physical players (e.g., physical factors and regulatory requirements influencing volume no longer have to be proven to be "outside the control of the parties"). The CFTC has some unfinished business that can still affect physical power users. For example, this week the CFTC noticed its Dec. 9 Agricultural Advisory Committee will be a focal point for re-opening a comment period on position limits on swaps and futures. Presumably the CFTC will finally act on this during the first part of this year. Further, there are other issues, such as the increased capital (or margin) requirements on swap dealers (e.g., Shell, BP, banks) that could indirectly affect the cost or collateral requirements of transacting with swap dealers. But overall, 2015 is expected to be a calmer CFTC year. Best wishes to all.

scheduled inter-tie bids in both the day-ahead and real-time markets following the new inter-tie rules implemented in May. The most striking change occurred in the real-time market where most of the inter-tie import and export bids were self-scheduled. Around 87 percent of import bids and 46 percent of export bids in the hour-ahead market were self-schedules between May and September. In the first four months of 2014, 44 percent of import bids and only 8 percent of export bids were self-scheduled in the hour-ahead market." So, the self-scheduled real-time bids for imports have doubled up due to the migration of bids to the DA market. Why should you care? Because for example the reliance on self-scheduled bids at the interties to relieve transmission congestion, which is priced at the tariff-approved penalty price, can either greatly increase the market price of imported energy (at $150/MWh, good for CA suppliers but bad for CA consumers) or greatly suppress the market price (at -$150/MWh, bad for CA suppliers but good for CA consumers). That's why. When the penalty prices soon move to ±$300/MWh, my warning will be even more poignant. The fault isn't in the penalty price per se because I think it's a good market feature. It incents shippers to consider economic bids instead of self-scheduling, which promotes a liquid market to solve the problem instead of relying on an administrative allocation of scarce transmission capacity.

The CAISO included in its report the chart below that is a bit difficult to decipher but well worth the effort. The color coding makes the interpretation difficult, but hopefully you'll be able to see it. In the future, the CAISO should resort to using more starkly contrasting

Figure 1.1 Volume of self-scheduled and economic import and export bids



patterns as well as colors to make its point and also explain which colors go with the DA market and which colors code for the RT market. The color code on the left is for the DA market, and the color code to the right is for the real-time market. Imports are positive MWs, whereas exports are negative MWs. That's why there are eight different colors in the chart. So the message is as follows: Since May 2014 when the new FFM was implemented, RT self-schedules dramatically increased and economic bids became scant. For exports the situation was starker; RT economic bids simply vanished.

Chef Laura Manz continues on her culinary quests along with all her many consulting assignments. Here's what she has for us today: "Lou Fonte of the CAISO claims he has *the perfect holiday side dish* with a recipe for orange sweet potatoes that he serves up for special holiday occasions. Here is his recipe:"

Preheat the oven to 400 degrees. Place 3 lbs. of (or 7 large) sweet potatoes on a baking sheet and bake until tender, about 1 hour. Remove from the oven and let them rest until just cool enough to handle. Lower the oven to 350 degrees. Use 4 large oranges to make cups by cutting the oranges in half, scooping out the pulp and reserving the shells. While still somewhat warm enough to melt butter, peel the potatoes and place in a large bowl. Discard the skins and any stringy fibers. Add 1 stick of unsalted butter and work out the lumps with an electric mixer. Add ½ cup of light brown sugar, 3 large eggs, ¾ cup of orange juice, ½ cup of heavy cream, and ¼ cup of brandy; mix until the batter is smooth. Add 1 tsp. of ground cinnamon, ½ tsp. of ground nutmeg, and ½ tsp. of salt and mix well. Re-season to taste. Spoon the sweet potato mixture into the orange cups, mounding and smoothing the top. Bake until puffed and slightly golden, about 20 minutes. To kick this up another notch, drizzle some (real) maple syrup on top and let it caramelize in the oven.

What we believe (cont.) …

5) However, when IOUs do the investing, the risks to them are minimal or non-existent because ratepayers cover all of the costs.
6) Overcapacity lowers electricity spot market prices; yet retail rates can increase in this case due to full cost-of-service regulation.
7) Markets work best when there are many buyers and sellers.
8) At-risk money will be put to work and attract new investment where markets exist that are legitimate and yield credible prices.

Oh baby, I can imagine the heavenly aroma that dish imparts. Mmm.

Here's your spoon-fed cup for this week:

>>> Things FERC

@@@ OE's Annual Report

I learned from my mentor and colleague Vito Stagliano (may he rest in peace) that there are no such things as free markets but simply well-regulated ones. I have held that without proper and reasonable regulation we don't exist … at least not for long. The regulator is the bridge between our business endeavors and the public's trust. In the last two weeks there were two relevant items to review in this regard: the FERC Office of Enforcement's annual report, and the testimony of acting OE chief Larry Gasteiger before the U.S. Senate Committee on Homeland Security and Governmental Affairs Permanent Subcommittee on Investigations.

First, I was gratified to learn about the report, released on Nov. 20. I didn't know that it existed or that editions had been issued in previous years, but they had. FERC Chairman Cheryl LaFleur held up the report at the last FERC business meeting advising all compliance officers at FERC jurisdictional companies to peruse it because it is "must reading" to better understand how OE works and what her agency wants to see in terms of conduct.

<u>… and, what we should do:</u>

1. Believe in ourselves.
2. Encourage creation of independent, multi-state regional transmission organizations that coordinate policies with respective state utility commissions.
3. Support rules for resource adequacy that apply uniformly among all load-serving entities.

Since my criticism of FERC's OE has been pointed and unleashed with a fury over the last year or two, I delved into the report to see what the agency thought of its own work in this area. This was one of those reports that deserved to be read from the back to the front. The goodies, you know, are always in the back. The 56-page report has several sections, some of which I didn't care about. I was focused on the market manipulation activities that have brought forward some whopping settlements and a few court challenges. Thus, the relevant sections from that point of view was in the 20 or so pages regarding activities at the Division of Investigations (DOI), the one page regarding the electricity sector by the Division of Analytics and Surveillance (DAS), and the two appendixes reporting on last year's (FY '14) enforcement actions and notices of alleged violations.

All the important cases were detailed in the report. Regarding the section on investigations, the report separates investigations initiated via the hotline from self-reported violations. The importance of the distinction is an effort by OE to promote transparency and thus show the world that many if not most hotline tips and self-reported incidences have been examined and subsequently dismissed without any action. Very few investigations make it to the stage of Notice of Violation.

Yet one of the new processes that the DAS and DOI have employed is cooperating with the CFTC and using the latter's Large Trader Report for daily open financial positions to examine if countervailing physical positions are indications of market manipulation. I'll come back to that point later. The DAS summary states: "During FY2014, staff ran monthly screens that identify patterns at the hourly level by monitoring the interactions between physical and virtual bidding strategies and potentially benefiting payouts. In particular, these screens identify financial transmission rights and swap-futures that exist at nodes and constraints where market participants also trade virtuals, generate electricity, or move power between RTO/ISOs … DAS continued to develop and improve its surveillance capabilities by incorporating new data sources such as the LTR data." Whether an open financial position paired with a physical trade is a true indicator of manipulation remains fuzzy to me. I'm sure even the FERC OE staff would agree that it doesn't prove manipulation. It is simply a screen to see if more investigation is warranted. Yet any compliance officer worth his or her salt would advise his or her traders to back off of any such behavior because no compliance officer in the history of the universe ever received a promotion for inviting FERC OE to sniff around the company's trades. Does it matter if one person's hedge or risk avoidance strategy is another's definition of possible manipulation? No. The outcome will be: Don't use that hedge strategy because FERC thinks it is a trigger to an investigation regarding market manipulation.

On the other hand in the Annual Report on Page 27 there is one illustrative hotline-inspired investigation (company identification and the RTO remained anonymous) involving potential market manipulation "when [the company] significantly increased its CRR bid quantities and prices in two separate geographic locations and thereby held relatively large quantities of these CRRs." That sounded like the kind of tinkering many of you complain to me about as a legitimate business practice absent of any manipulation but not deemed as such by FERC OE. Yet the outcome was, "Staff determined that groups within the institution operated independently without coordination and that their behavior was based on economic fundamentals rather than intent to create artificial congestion, and thus closed the matter with no action." I was pleasantly surprised to read that.

<u>…and, what we should do (cont.):</u>

4. Enforce competitive solicitations by utilities for purchasing either thermal or renewable power.
5. Support choice among retail electricity customers.
6. Lobby for core/non-core split of retail customers.
7. Advocate against policies that limit, through bid mitigation, merchant returns on investment that are utility-like returns.

Where is the hiccup in all this? Where are the regulator and regulated not seeing eye to eye? I suppose it's embedded in the major outstanding disputes correctly identified as "Significant Matters." Notably among the three cases identified is the one involving Barclays Bank and its four individual traders, which is currently pending before the U.S. District Court for the Southern District of New York. Another example of a hiccup is the Powhattan matter that was among the cases noticed as an alleged violation in Appendix C of the Annual Report.

Do these accusations and purported evidence by OE measure up to the type of regulatory scrutiny that warrants respect or derision? It's a conversation that hasn't occurred publicly, but I think it should. It's the type of conversation that may bring better regulation to the field, confidence that the intended bad actors are being weeded out, and as a result encourage broader market participation among companies that have shied away from power trading and also offering risk management services because of FERC's perceived heavy hand.

When the dust clears regarding Barclays and Powhattan, assuming positive dispositions of both (big assumption, I know), I'd love to conduct a public retrospective on what FERC did, what it thought, why it thought it, and how to avoid such collisions in the future. That's the type of conversation I envision and for which I hunger.

The second tine of our regulatory fork is the Senate testimony of Gasteiger in which he stated that his agency and in particular his office has one limitation that resulted from the decision by the U.S. Court of Appeals for the D.C. Circuit in *Hunter v. FERC*. Specifically, he said: "In *Hunter*, FERC brought an enforcement action against the market manipulation by a trader at the Amaranth hedge fund. After the Commission assessed a $30 million penalty, the court ruled that the CFTC's exclusive jurisdiction over futures contracts deprives FERC of authority to bring an action based on manipulation in the futures market, even if the activity affected prices in the physical markets for which FERC has exclusive jurisdiction. Although the Commission reads the *Hunter* decision as narrow in scope, some market participants interpret the decision more broadly to cover not only manipulation in the futures markets, but also many additional transactions and products, including those squarely within FERC's jurisdictional markets. Accordingly, a legislative fix to eliminate uncertainty on this matter could ensure FERC has the full authority needed to police manipulation of wholesale physical natural gas and electric markets."

I'm concerned that the so-called link between futures markets under the jurisdiction of the CFTC and OE investigations of FERC's jurisdictional markets (it's difficult for me to use a blanket term physical markets, but that's the way FERC thinks of itself) is not well-defined. I know it will never be perfectly defined, but the matter remains hyper-fuzzy and that's not good for anyone.

Anonymous comments are certainly welcome to help me flesh out these ideas.

>>> Shout Outs

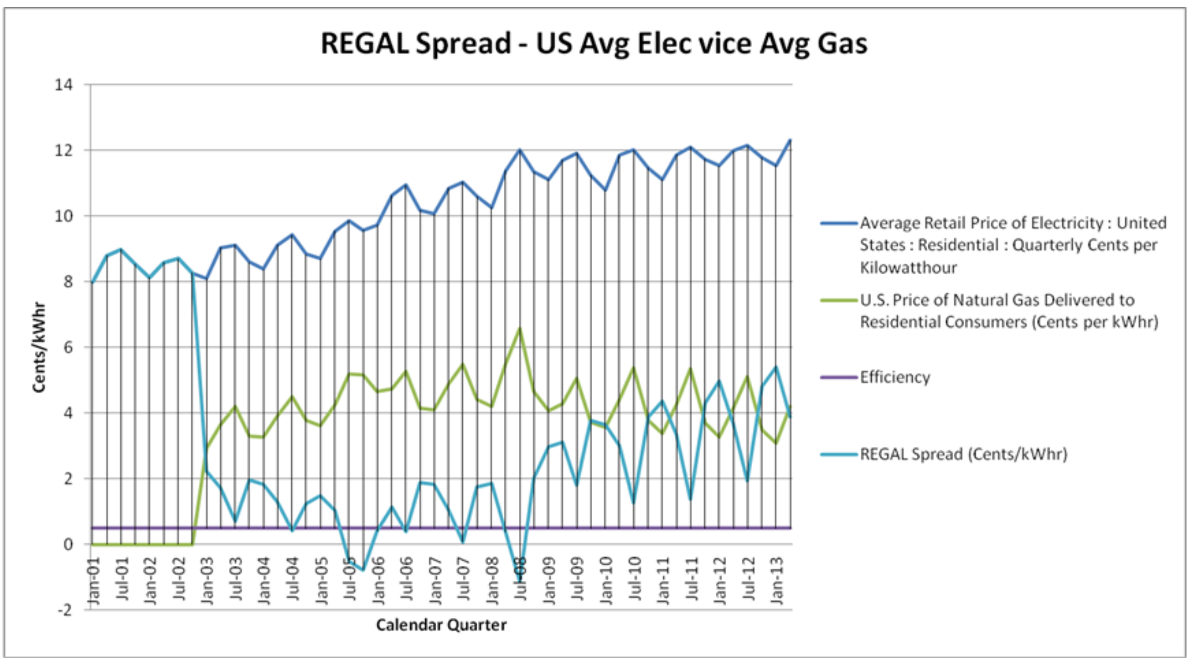
Congratulations to Max Bulk who has recently taken the COO position at Houston-based Vitol Energy. You can contact him at msb@Vitol.com. Max was previously in the operations group of Goldman Sachs and can trace his energy lineage back to the CalPX and APX … ancient history.

Congratulations as well to Nico Procos who is taking the position of Manager of Utilities Administration at the Port of Oakland (CA). Nico has done great work at the City of Palo Alto and I'm sure all his colleagues join me in wishing him well at his new job. Wrote Nico, "I'm looking forward to the new challenge, but best of all I'm looking forward to trading my current 70 mile freeway commute for a 12 mile bike/car commute. While not directly a factor, your musings on traffic (LA), the island of Ikaria, and how we all will have many jobs but only one life, helped me structure my priorities for this decision." Hey dude, I do what I can. Good on you.

DC job seekers in our biz please take note that FERC's Office of External Affairs is seeking a candidate to help in coordinating with the many state regulatory agencies. The official job Vacancy Number is FERC-DE-2015-0024; the Series & Grade is GS-301-13; and the opportunity is open to all who are interested. Click here for the official posting. The salary range is $90k to $116k per year and all the state regulatory fluff you can handle. Click here for more information but please note that applications are **due on or before Dec. 15.**

Here's a letter from Mark Bryfogle. Mark is very busy working in the new technology distributed generation space, but occasionally he takes time out of his exhausting work schedule to send us a comment or two. "A few weeks ago I made a presentation at the FERC during its Trans Atlantic Infrastructure conference. There was an anti-fracking protest going on outside of the building. The police held us back from entering for about an hour. The unruly crowd was exhorting all FERC employees to quit their jobs immediately. I suppose that I can technically claim that I was physically assaulted upon entering under police escort. One protester jumped directly in front of me and got in my face. I told him that I respected his right to protest and expected him to respect my right to conduct my business. I then moved to the side and forward whereupon he moved diagonally backwards and made contact with me as I walked past. So physical contact = assault? I don't care. I am just passing that along. Is that the act of a run-of-the-mill mob, or an extremely aggressive one and indicative of a nascent, virulent (and effective?) anti-fracking movement? Your guess would be as good as mine.

"My presentation itself went well. Below is one of my graphics. This is the broad, nationwide average REGAL (**RE**tail **GA**s e**L**ectric) spread. My work in new DG technologies is making more sense every day."



After reading Mark's note, I had to ask him to spend a little more time explaining the REGAL spread above, and how, for example, the spread went negative when in fact the plot shows the gap as always being positive? How did he determine natural gas price in terms of ¢/kWh, and finally what was his definition of efficiency? Mark replied, "Retail NG prices come from the DOE monthly survey but quoted quarterly in $/Mcf and converted at my desk: retail natural gas at $17/Mcf = $0.059/kWhr!?!?! Electric prices come from DOE monthly. I am not sure why I did the REGAL spread in semi-annual terms. Probably because I wanted to go back a long way and I was having trouble fitting data."

The bottom line of his graph is that natural gas used in DG applications may be approaching a sweet spot in favor of more DG.

>>> Odds & Ends (_!_)

I'm plumb out of anything else to say other than these few bits.

First, my thanks to John Flory for his two years of writing the Burrito column on Dodd-Frank issues. Next year I'll introduce a new column in John's place authored by Jim McIntosh on his views regarding California's grid operations.

Second, Montana PSC Commissioner Travis Kavulla will be one of the keynote speakers at next February's WPTF General Meeting in Del Mar, California. Travis and FERC Chairman Cheryl LaFleur will give our meeting outstanding content as well as a perfect opportunity for doing the network thing.

It's late even in Las Vegas and I'm tired, so here are you stories for this week.

Critical Reasoning – Old School

An older woman decided to give herself a big treat for her 85th birthday by staying overnight in an expensive hotel.

When she checked out the next morning, the desk clerk handed her a bill for $450.00.

She was shocked and demanded to know why the charge was so high. "It's a nice hotel but the rooms certainly aren't worth $450.00 for just an overnight stay! I didn't even have breakfast."

The clerk told her that $450.00 is the 'standard rate,' so she insisted on speaking to the manager.

The manager appeared and, forewarned by the desk clerk, informed the woman, "This hotel has an Olympic-sized pool and a huge conference center which are available for use."

"But I didn't use them," she said.

"Well, they are here, and you could have," explained the manager.

He went on to explain that she could also have seen one of the in-hotel shows for which the hotel is famous . "We have the best entertainers from the world over performing here," the manager said.

"But I didn't go to any of those shows," she said.

"Well, we have them, and you could have," the manager replied.

No matter what amenity the manager mentioned, she replied, "But I didn't use it!" and the manager countered with his standard response.

After several minutes discussion with the manager unmoved, she decided to pay, wrote a check, and gave it to him.

The manager was surprised when he looked at the check. "But madam, this check is for only $50.00."

"That's correct. I charged you $400.00 for sleeping with me," she replied.

"But I didn't!" exclaimed the very surprised manager.

"Well, too bad. I was here and you could have."

I think I have used that one before, but it's been long enough that if I can't remember, then it must be time to use it again. Here's another:

He trashed the house when he came home drunk ...

This is a story about a man waking up after a wild night in his home. He had no idea what his wife was going to do.

Jack wakes up with a huge hangover after attending his company's Halloween Party. Jack is not normally a drinker, but the drinks didn't taste like alcohol at all. He didn't even remember how he got home from the party. As bad as he was feelings, he wondered if he did something wrong.

Opening his eyes, the first thing that he sees is a couple of aspirin next to a glass of water on the side table. And, next to them, a single red rose. Jack sits up and sees his clothing in front of him, all clean and pressed. he looks around the room and sees that it is in perfect order, spotlessly clean. So is the rest of the house. He takes the aspirin and cringes when he sees a huge black eye staring back at him in the bathroom mirror. Then he notices a note hanging on the corner of the mirror written in red with little hearts around it and a kiss mark from his wife in lipstick.

"Honey, breakfast is on the stove. I left early to get groceries to make you your favorite dinner tonight. I love you, darling! - Jillian.

"He stumbles to the kitchen and, sure enough, there is hot breakfast, coffee, and the morning newspaper. His son was also at the table, eating. Jack asks, "Son… what happened after last night?"

“Well, you came home after 3 A.M., drunk and out of your mind. You fell over the coffee table and broke it, and then you puked in the hallway, and got that black eye when you ran into the door.

Confused, he asked his son, “So, why is everything in such perfect order and so clean? I have a rose, breakfast is on the table waiting for me??”

His son replies, “Oh THAT! Mom dragged you to the bedroom, and when she tried to take your pants off, you screamed “leave me alone, I’m married!”

Broken coffee table: $239.99. Hot breakfast: $5.00. Two Aspirin: $.38. Saying the right thing at the right time… priceless!

I believe in always saying the right thing at the right time. Unfortunately, I usually get one of those two things wrong.

Have a great weekend.

gba